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WESTERN JOURNAL,

OF

AGRICULTURE, MANUFACTURES, MECHANIC ARTS,
INTERNAL IMPROVEMENT, COMMERCE,

AND

GENERAL LITERATURE.

Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER & T. F. RISK,
EDITORS AND PROPRIETORS.

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M. TARVER AND T. F. RISK, Editors and Proprietors.

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NOTE.—For "phenomena" in 4th line, Article III., page 16, read "phenomenon."

THE

WESTERN JOURNAL.

VOL. VI. April, 1851. No. I

Article I.

IMPROVEMENT OF WESTERN RIVERS.

Having long regarded the question touching the constitutional power of Congress to improve rivers and harbors as settled in the minds of a majority of the nation, and, trusting that the work of improvement would ere now have been resumed, we have hitherto refrained from all discussion on that subject.

But the delay on the part of Congress to make appropriations to these objects, and the defeat of the bill recently before that body induce us to inquire into the causes which tend to weaken the political influence of the western States in the national councils.

No one seems yet to have observed the important fact that, instead of gaining political influence with increase of population, the West is now more completely under the control of the East and South than it was twenty years ago, when its population bore a much less proportion to that of the older States than it does at present. This assertion is verified by the history of legislation on the subject before us. In the year 1827 Congress appropriated thirty thousand dollars for the improvement of the Ohio river; and other appropriations were made by each succeeding session until the year 1839. During this period of twelve years, embracing the entire administration of President Jackson, and, a part of Mr. Van Buren's, almost every river in the Union received something towards its improvement. In eighteen hundred and thirty eight a sum of $100,000 was appropriated to the improvement of the Hudson, above and below Albany; and in eighteen hundred and forty-four an equal amount was appropriated to the improvement of the Ohio between the falls and Pittsburg.

An executive veto in 1846 put an end to these appropriations; and notwithstanding the people, without distinction of party, have met in several large conventions and joined in urging upon Congress the resumption of the improvement of our rivers, yet the friends of the West have not been able to re-establish a policy which

had been recognized and sustained by the nation for twenty years anterior to the Executive veto, by which it was in effect repudiated.

We are informed that the late bill was defeated by stratagem and unfair conduct on the part of certain senators: this may have been the case, but does not explain the true cause. The acts of these senators only exhibit the manner in which the bill was finally lost; the cause of its defeat must be sought for elsewhere.

Local or geographical parties are not less necessary, in the present condition of the United States, than parties formed upon questions of national policy. We have a northern and a southern party, but no western party: with those, national politics are made subservient to sectional interests; and each is actuated by the strongest motives to support their respective measures. But in the West, all local interests are made to yield to national politics, modified by, and designed to promote the sectional interests and prejudices of the other two great divisions. Consequently the political power of the West is divided out between the North and the South, and, is made to subserve the purposes of the one or the other as they may happen to be in the ascendant. While in this condition it cannot be expected that the West can carry any measure which conflicts with the local interests or political views of either of the other parties. President making is the highest object aimed at by western politicians; and it is natural that measures, though of vital importance to their constituents, should be made subservient to this end. So long as this State of things continues, the fate of all western measures must depend upon contingencies which have no relation to their merits; and we must be content to wait for an appropriation to remove the obstructions in our rivers until the happening of some lucky combination in the movement of politicians on the political chessboard. We charge no individual of the Western delegation with dereliction of duty; but we venture to affirm that, had they been united in the cordial support of Western interests and exerted that vigilance which distinguishes the Northern and Southern parties in the prosecution of their respective measures, the river and harbor bill, recently before Congress, would not have been defeated by a stratagem; and they would not have been compelled to return to their constituents with the humiliating apology that they had been outwitted and defeated by the disingenuous conduct of a minority. Nothing has transpired since the adoption of the Western States into the Union that so strongly manifests their weakness in the national councils as the action of the thirty-first Congress during the last day of its existence. The passage of a bill making liberal appropriations for light-houses on the Atlantic coast, immediately after the loss of the River and Harbor Bill, shows how easy it is for Congress to pass a measure calculated to encourage foreign commerce when the bill contains no provision for the benefit of the internal trade of the Western States.

We trust however that the history of these bills will awaken the people of the West to a greater degree of diligence in regard to their common interests. The inconveniences and evils arising from the obstructions in our rivers have not been sufficiently appreciated, especially by those who reside in districts remote from navigation. People generally regard the consequences of a loss as confined to the owner of the property injured or destroyed; and reasoning from the old saying that "the loss of one is the gain of another" they perceive little cause to complan of the obstructions and dangers which impede the commerce of this region. It should be remembered that the farmers of the West are, for the most part, compelled to look for consumers in distant markets, where their products come in competition with those of other districts. Consequently the cost and risk of transportation must all be born by the producer. From this burthen there is no means of escape. By selling his produce at home the farmer may avoid the direct payment of freight, and, also, the dangers to which the specific commodity is liable while on its way to market, but he obtains this exemption by a deduction in the price, sufficient to indemnify the purchaser. And upon the same principle the price of all articles of foreign production, consumed by himself and family is enhanced; for the carrier and the merchant must be compensated for the risks incident to their vocations or commerce must cease entirely.

Moreover, for the want of better navigation produce is compelled to wait for certain stages of water; and consequently its owner is deprived of the privilege of choosing his time for selling.

These are drawbacks and burthens on the labor of the Western States that greatly retard their prosperity; and serve to prolong their colonial dependence on the East. The efforts which have been made to re-establish the policy of improving our rivers have failed, chiefly, in consequence of the reliance placed in public demonstrations. County meetings and conventions may exert a potent influence on elections and other subjects of like nature; but they produce but little effect on the action of Congress, especially when they have reference to sectional or local measures; and, in one respect, they sometimes weaken the cause which they were designed to promote. For when a measure has been discussed in convention, the people seem to conclude that they have done all that is necessary to promote the object desired; and, relying upon the efficacy of resolutions and reports, cease to interest themselves further in the matter.

It is unwise for any people to rely alone upon a few individuals for the direction and management of their public policy. Men who engage in public affairs may be patriotic, talented, and vigilant: but they cannot act efficiently unless their constituents think and act for themselves; for in the exercise of his public functions the representative derives the chief element of his power from the enlightened views and sympathies of his constituents. Stationed

in every department of industry, suffering the evils and enjoying the individual and social benefits of all public measures, it is the province and duty of the constituent to observe the operations and influence of the existing policy; to point out its defects, and suggest the proper remedies. It is from this source only that the statesman can learn the true operation and effects of his measures, and qualify himself for the discharge of his duties. Without such vigilence on the part of the people, their representatives, instead of being statesmen, become mere politicians; followers of metaphysical abstractions, and gamblers for office.

The history of the last five years should admonish the people of the West of their supineness in respect to measures involving their own interests, and of their folly in permitting their minds to be excited and their strength paralyzed by the political metaphysics and sectional jealousies of other parts of the Union. It should teach them the necessity of cultivating a Western sentiment, and the importance of establishing a new test, as a qualification of their senators and representatives in the national councils, viz: Is their devotion to the interests of the West stronger than their party ties or political aspirations? For until our delegation in Congress shall come up to this standard, it will always be liable to be divided by political manœuvering, and our measures defeated by either of the two great sectional parties whenever they may conceive that their own interest will be promoted by doing so.

Subserviency to party discipline, and inordinate aspirations for office, have been instrumental in defeating all appropriations for the improvement of our rivers throughout a period of five years; and similar causes will continue to defeat every bill brought forward for that object to the end of time, unless our people exercise more vigilence at the polls and over the conduct of their representatives.

Many individuals entertain the opinion that the time is near at hand when the increase of population will enable the West to dictate the policy of the nation; but we have shown that this is a delusion. Increase of numbers is not, necessarily, increase of power; for as long as we remain subject to the control of others they will not allow us to serve ourselves: they will continue to use our strength as now, for their own purposes; and wield it against our own interests, though our numbers should increase an hundred fold. Our numbers are already sufficient for the attainment of all legitimate objects; and all that is lacking to insure the success of reasonable and just measures, is a sincere devotion to Western interests, and a firmness of purpose that will command the respect of the other great divisions of the Union.

But what shall we say when we find senators and representatives in Congres, even from Western States, opposing appropriations for the improvement of our rivers, while large sums are appropriated to the improvement of harbors, and erecting light houses and other works on the Atlantic coast, for the protection of foreign commerce?

Every candid man is compelled to admit that the authority to erect a light-house or improve a harbor on the Atlantic coast, if it exist at all, extends to, and embraces the removal of snags and other obstructions to the navigation of rivers; and we are constrained to regard Western members of Congress, who sanction such improvements on the Atlantic coast, while they oppose the improvement of our rivers, as being unfaithful to the interests of their constituents, and unworthy of public confidence.

The Mississippi is a great national highway, washing the shores of nine States and one Territory; bearing on its bosom a commerce not less than the entire amount of our foreign trade; beneath its surface lie concealed innumerable logs which occasion the loss of an immense amount of property and many human lives annually: and we ask the people of this great region, whether they are content that these dangers to their property and lives shall be permitted to remain through all time? By the compact of admission into the Union, the State of Louisiana stipulated "that the river Mississippi, and the navigable waters leading into the same, or into the Gulf of Mexico, shall be a common highway, and forever free, as well to the inhabitants of said State as to other citizens of the United States, without any tax, duty, impost, or toll therefor, imposed by said State;" and similar provisions are contained in the acts authorizing the admission of Missouri, Mississippi, Arkansas, Iowa, and Wisconsin. Thus it will be perceived that the United States having reserved the navigation of the Mississippi and its tributaries to the use of the citizens of the Union at large, free of any tax, duty, or other burthen, it follows as a reasonable and just conclusion that the general government assumed the duty of removing the obstructions to its navigation. It may even be questioned whether these States possess the right to enter upon the Mississippi and do any act that would change its natural channel; but admit that such right exists the benefits of their labor would accrue to the people of the United States at large, free of tax or toll for their enjoyment.

It was not our design in the commencement of this article to discuss the constitutional right of Congress to improve rivers and harbors: we regard that question as settled. Our principal design was to enter a protest against the acts of those who have been instrumental in obstructing the progress of a work which we deem essential to the prosperity of the Western States, and to awaken the people of this region to a sense of their weakness in the national councils.

Never has there been a time since the settlement of the West when she stood more in need of able, sound, and judicious counsel than now. She is about to enter upon numerous schemes of improvement, involving the expenditure of an immense amount of capital: the prosecution of these works will necessarily affect the ordinary channels of commerce; and it will require no ordinary

degree of circumspection in the policy to be pursued by Congress as well as by the States to avoid the dangers of a revulsion, and a failure in our projects of improvement. At such a time as the present the speculating politician should not be trusted. We need men in every public department who are devoted to our interests; practical men, and honest, with minds capable of comprehending the true principles of political economy, and of wisely applying them to the condition of this great country. Give the Western States a delegation in Congress composed of such material and we shall never be told again that our measures have been defeated by stratagem.

Article II.

THE PROSPECT: AGRICULTURAL, MANUFACTURING, COMMERCIAL AND FINANCIAL AT THE OPENING OF THE YEAR 1851.

This is the title of a pamphlet containing about 80 pages from the pen of Henry C. Carey, whose chief object in writing the book seems to have been to point out the evil consequences of the revenue law of 1846. We have never approved of the tariff of 1846: but desiring to avoid all political discussions we have left that subject in the hands of the people and their representatives. The author has examined the operation of the tariff of 1828 and the principal revenue laws passed since that time, and has arrived at the conclusion that the present system will speedily result in a revulsion not less disastrous than that which the country experienced in 1837.

We are free to admit that there is a strong tendency to overtrading in foreign commerce, which, continued for a few years, must result disastrously: but, with a few modifications of the present tariff, such as we believe a large portion of the democratic party would consent to, we should feel little apprehension of a revulsion. The changes which have been made, from time to time, in our revenue laws have generally been too radical. This we regard as the capital error in American legislation on that subject. It is the office of the Statesman to observe the effects which the rate of duties, as established, produce on the industry, products, and commerce of the country; and whenever it is discovered that the tariff, fixed on any commodity operates injuriously, it should be so modified as to remedy the evil. It is only in this way that "a judicious tariff," a term at one-time ridiculed and much commented on, can be established or continued for many years in succession. For it would be absurd to suppose, in this age of progress when

every thing is undergoing rapid change, that the regulations of commerce, a thing of all others, perhaps, the most subject to change, could be based on a foundation immutable.

We are much pleased that Congress, at its recent session, has taken the initiatory step towards this policy. A modification was made in the tariff on iron: it may not prove sufficient to remedy the evils which all admitted to exist under the former law; but it was better, in our opinion, to stop a little short of the mark than make a radical change suddenly. If this amendment will not sustain the producers of iron, then let an additional duty be imposed that will. And we are persuaded that, if instead of making indiscriminate war against the present tariff those engaged in other branches of industry would present their respective claims to relief from its oppression in the ingenuous and compromising spirit that distinguished the petition of the iron masters of Pennsylvania, our revenue laws would be so adjusted, in time, as to promote every interest of the country; and the tariff question would cease to agitate the nation as in times past.

We will not say that the labors of Mr. Carey may not be of service to the cause he advocates; his book contains many facts which should be more generally known and remembered: but his arguments are all on one side; and it is rare that the opinions of an individual are ever changed by an argument that does not concede something in favor of his own side of the question. The caution which the book contains against over-trading and speculation is well timed; and may prove useful to many. We copy the following pages from the conclusion of the subject. EDITORS.

We are now entering upon the second term of the present system of policy, and the reader has had before him the pledges given in reference to both it and its predecessor. The one having proven a failure, we have reason to suppose that the other may do so likewise. That it will do so, and that the only difference will be that the failure will be more complete, I propose now to show, putting on record my predictions of the next four years, that others may have an opportunity at the close of the term to review my anticipations as I have reviewed theirs, and to expose my errors as I now exhibit theirs.

At the last session of Congress, an act was passed granting bounties in land to all persons who had served in the various wars in which the country had been engaged, from the Revolution to the present time. The quantity that will be required to meet the demands under this law is estimated at about ninety millions of acres, all of which may be regarded as a bounty on emigration from the old states to the new states and territories, at a time when, even without such bounty, the tendency to emigration was as great, and probably greater than ever had been witnessed, owing to the universally diminished demand for labour in all the Atlantic states.

Each and every man that emigrates, ceases at once to be a producer of any thing that can be eaten, worn, or used, while he continues to eat, drink and wear things that are produced by others. Each man that emigrates takes with him some amount of capital that has heretofore been employed in the production of things to be eaten, worn, or used, but from the time of its withdrawal it ceases to produce any thing, its owner applying it to the purchase of commodities required for the use of himself and his family while engaged in the preparation of the new machine that is to take the place of the one he has heretofore used, whether mill, furnace, mine, or farm.

With each and every person that emigrates there is increased difficulty in finding employment by those who are left behind. The closing of the mines compels the miners to emigrate, and thus diminishes the market of the neighbouring farmer for those bulky products of the earth which pay him best, but will not bear transportation to distant markets. It also closes up the demand for the spare labour of himself, his sons, his horses and wagons, and his timber, and thus compels the separation of the members of the family from each other, diminishing the power to clear and cultivate his farm, and ultimately to divide it into smaller portions, each one of which could, and would be made to produce more than is now produced by the whole.

Whatever, then, may be the ultimate result of an increase of emigration, the immediate effect is, necessarily, a diminished amount of production by *both labour and capital*, and that diminution cannot be estimated at less than five hundred dollars per head for each man, married or single, and it would be safe to place it higher. The emigration of the past year has been very large, but having now offered a bounty upon its increase, we may safely estimate that that of the present and future year will be much larger, and if we take *the addition* at only twenty thousand per annum, the diminished production of commodities in consequence of this law, in this and the next year, will be twenty millions of dollars.

It is now proposed to grant to every head of a family in the Union a quarter section of land, as a farther bounty on emigration, and "as madness rules the hour," it is probable that such a law will pass, the consequence of which will be a vast further increase of emigration, and, consequently an enormous diminution in the value of all landed property in the already settled states, from the Mississippi to the Atlantic.

The perfect form of society is that in which the centrifugal and centripetal forces balance each other perfectly, and whenever either of these forces obtain the mastery, the inevitable effect is impoverishment, weakness, and ruin. The policy of England has been to increase the centripetal force within herself, and the consequence has been to increase the centrifugal one in all connected with her, impoverishing and destroying both herself and them. Ireland is

likely to become almost depopulated. Much of Scotland* is already so, and the great object of desire in England is now the expulsion of population.

The policy of 1846 is centrifugal in its tendency. It looks to sending from the land all the products of the land, which is thereby exhausted. It looks to depriving the owner of the land of his market for its most profitable products, the potatoes, the turnips, the hay and straw, the veal and milk, and other commodities that will not bear transportation. It looks to confining him to the single pursuit of agriculture, and thus depriving him of a market for all the labour of himself and his family, his horses and his wagons, not needed on his farm. It looks to compelling the owner to emigrate after having exhausted his land. It looks to continuing the occupation of the land in large and unprofitable farms, instead of dividing it into small and profitable ones.

Including California, it has probably already compelled the transfer of not less than half a million of men from the older states to the newer ones—from places at which they were engaged in producing commodities that could be used in satisfaction of their necessities, food, fuel, cloth, and iron, to other places in which they are engaged in the creation of new machinery, requiring all the time to be fed, and clothed, and lodged, and that, too, at a cost that is terrific. The California emigrant eats the food of Chili, and sleeps in a house built of the lumber produced in New York or Maine, or perhaps Wisconsin. The emigrant to *Santa Fe* eats pork that costs for its transportation no less than *thirty-two dollars* per barrel, and he who goes to *Paso del Norte* eats that which has cost for its simple transportation no less than *forty-eight dollars*,† while his flour costs him about forty dollars. The half million of men thus scattered over the earth, aided by the capital that has been employed in placing them where they are, and maintaining them, were capable of producing food, clothing, iron, fuel and other commodities, to the extent of at least five hundred dollars each, making an aggregate of not less than two hundred and fifty millions of dollars in a single year; whereas, all the return as yet received from them will not pay for one half of the commodities furnished for their support by others, so that the whole of this vast sum con-

* "It is becoming clear that nothing can relieve the poverty of the Highlanders but the property of the Highlands. The people must be fed, in spite of mortgaged estates and laws of entail, and all other burdens whatsoever. The land must be free, that the people who till it may live. The Highlands require an Encumbered Estates Commission to cut the Gordian knot. Five years of famine in the Highlands have failed to clear off the wretched population. It now remains to be seen whether the land cannot be made to afford them some support."

† These are the government contract prices. How enormous is the cost of transporting and sustaining men in the remote districts to which they are now being driven, may be judged by the following comparative view of the charges from the Quarter Master's Department in the four new departments of Oregon, California, New Mexico, and Texas, as compared with the rest of the Union:

New departments, $4,225,752. Old departments, $530,247.

stitutes a deduction from the present power of the nation to produce commodities in which to trade, or with which to pay for those that we desire to purchase from other nations, and hence it is that we have now so little to export, and are running so heavily in debt.

Emigration produces a necessity for roads. The blocking up of capital from all employment in the construction or carrying on of mills, furnaces, or mines, causes capital to accumulate and enables speculators to obtain means for making roads. Each successive day brings with it advices of the closing of a mill, a furnace or a mine, and therewith come also advices of the increased abundance of money, or unemployed capital, for which there now exists no outlet whatever, except in road-making. Road-makers, however, produce nothing that can be eaten, drunken or worn, and yet they must eat, drink, and wear, and those at whose command the roads are made must supply the food, the clothing, and the lodging, which constitute the wages of the men by whom they are made.

The railroads now in progress of construction throughout the country amount to many thousands of miles—probably six or eight thousand.* The tables of almost every legislative body in the Union, at the coming sessions, will be covered with applications for new ones, while charters for plank-road companies will be asked for by hundreds. Every state, city, and town, and almost every town and township, is now ready to use its influence or lend its credit for obtaining the means of feeding, clothing and lodging the people who are needed to secure that which has become the one great and absorbing object—a good road to market—and bonds of every kind are forthcoming, to be used in the purchase of the necessary iron. The aid of Congress, too, is invoked, and it listens readily to the application. The last session witnessed the granting of a large bounty on the making of a road from Illinois to Mobile. The present one is likely to witness the passage of laws granting similar bounties for numerous other roads in the South and West, including a large one with which to commence the great road from the Missouri to the Pacific. Rivers and harbors are to be improved at a cost of some millions. The older states, too, are asking for a share in this new and grand distribution of lottery prizes. Pennsylvania has already claimed some millions of acres, and other States are following her example. If, now, we add all those things together, it can scarcely be doubted, that in their various forms they present an aggregate equivalent to not less than fifteen thousand miles of railroad, which, at an average cost of $18,000 per mile, would be equal to two hundred and seventy millions of dollars, every farthing of which must consist of labor diverted from the production of things that might be consumed at home, or exchanged for things abroad, and applied to the making of machines upon

* Those of Ohio and Indiana alone amount to nearly two thousand.

which things are to be carried, and which can neither be consumed at home nor exchanged abroad.

This, however, is not all. Congress is besieged with other applications. One desires the fitting out of the Pennsylvania, at a cost of several hundred thousand dollars, as a national contribution to the new British show-shop, the object of which is to induce the people of the world to come to England and spend their time and money. Another claims an appropriation for a line of steamers to Antwerp or Havre. A third would have lines from Philadelphia or Baltimore to Liverpool. A fourth desires a few millions for a line to carry the emancipated slaves of America to the coast of Africa, and to bring the Irish slaves of Britain to America, and that too at a time when the inducements to immigration are rapidly disappearing. A fifth would have a line of steamers from San Francisco to China. Tehuantepec and the Isthmus, and the Nicaragua Canal come in for their respective shares of attention, and the claims of each and every of them are pressed upon the national attention as being indispensable to the extension of trade, when with each step in that direction, there is a diminution in the production of things in which to trade. The less cotton we raise, the greater is held to be the necessity for roads. The less food and tobacco we export, the greater is thought to be the need for ships. The less foreign merchandise we are able to pay for, the more, as it seems to be thought, is the duty of providing steamers by which to bring it.

Another set of speculators has Canada in charge. That country is poor and her lands are of little value, while those of the Union close to the line are valuable. The one has no market for her products, while the other has. Canada desires to raise the price of her land and labour to a level with those of the Union. She has friends within the Union who are willing to depress ours to a level with hers, by the passage of an act permitting the Canadians to sell their food and their wool within the Union and to buy their cloth and their iron out of it, thus granting them all the rights of citizens, while imposing upon them the performance of none of the duties of citizenship. The passage of this act will largely promote the transfer of labour and capital to Canada, and largely diminish the productive power of the Union, and in return for this sacrifice we are offered a new road to market, the St. Lawrence, the use of which its present possessors are now rapidly abandoning. Diminution of production and diminution of the value of land and labour are, however held as nothing when compared with obtaining more roads by which to carry to market that diminished product. It is madness only to be paralleled by that of England in 1846, and

> "Each, where madness rules the hour,
> Would prove his own expressive power"—

by endeavoring to satisfy his hearers in and out of Congress, that

it matters little the closing of furnaces and mines, or the abandonment of farms and plantations, provided only, that roads and steamers be provided in sufficient number.

If we now take the quantity of labour withdrawn from production at home to the creation of new farms, plantations, and states, in the West, and likely to be further withdrawn as the bounty land system comes further into operation—the quantity withdrawn and likely to be withdrawn for the creation of this immense system of roads—the number of persons now thrown absolutely idle in consequence of the closing of mines, furnaces and mills,—the diminished production among farmers consequent upon the withdrawal of a demand for the more bulky products of the farm—the diminution consequent upon the annihilation of the productive power of seventy, or eighty, if not a hundred millions of dollars invested in mills, mines, and furnaces,—and the further diminution consequent upon the transfer of capital and labour to Canada, Mexico, the Isthmus of Panama, Nicaragua—it would seem impossible to doubt that there must be in the next and following years a diminution in the power to produce commodities for consumption or exchange, to the amount of a thousand millions of dollars, or five hundred millions of dollars per annum, being one-sixth of the total production, estimated by Mr. Walker three years since, and perhaps one-fourth of the true amount of production, which does not probably exceed two thousand millions of dollars.

How is this diminished production to become obvious? We already have little food to sell, and every transfer of labour from the production of food to the creation of new machinery, must lessen the quantity. If all these are to go on, the supply of food must be greatly diminished, and instead of exporting, as now, more than twenty millions of it, the probability is that we shall see the exports diminished to some eight or ten millions, while we shall import largely, as we did in 1836, and as Great Britain did in 1846. Prices will then be high, and with every increase there then will be diminished power on the part of the labourer to obtain food, with still rapid diminution in the power to purchase either cloth or iron. The farmers will temporarily profit in the price of food, as they did in 1846, but the ultimate result must be the same. They will lose five dollars in the diminished value of land, for one they will gain in the price of food. Cotton and tobacco planters will also benefit temporarily, at the cost of the consumers of cotton and tobacco. Wages, estimated in articles of consumption, must fall greatly, and immigration will diminish to the severe loss of ship owners. The capitalist will experience a daily diminishing power to invest his capital safely at the ordinary rate of interest, and thus it is, that the war upon labour and capital will be made.

With the diminution of the power to invest capital to advantage, there must be an increasing tendency to its accumulation in banks, unproductive to its owners. With every day, the demand for stocks

from Europe must increase. In the last half year, our imports have reached, as it is understood, about *one hundred and fifteen millions*, and the debt accumulated against us last year must have exceeded fifty millions, of which about fifteen millions were required for the payment of interest. This year we shall probably go in debt sixty or seventy millions of dollars, for we shall have less to sell and more to buy than in any previous one, and the close of the year will probably see us with a debt of three hundred and fifty millions, involving the payment of more than twenty millions annually for interest. With each transfer of stock, and with each step in the progress of diminution in the power to invest capital safely and profitably, the price of good stocks must increase among ourselves, until at length they attain a point higher than they will command in the foreign market.* Their export must then cease, and the demand for specie must then arise. Our silver is, to a great extent, already gone. Gold must follow, and the demand for only a few millions will open the eyes of bank directors to the fact that they are trading to a vast extent upon the funds of others who will now be able to use them for themselves. Discounts at bank will diminish, and note holders will be forced into the street to obtain at twelve, fifteen, or twenty per cent. the means of executing contracts made when the rate of interest was but five. Then will come THE REVULSION, and then will disappear the "prosperity" of which we now so fondly boast, and how rapidly the one will replace the other may be judged of by those who witnessed the change between the commencement and the close of March, 1837. The few will then grow rich, and the many will then be impoverished. New York, as the centre of speculation, will, as in 1837, first feel the shock, but thence it will gradually expand itself until it shall be felt throughout the Union, and all shall feel themselves involved in one common ruin, the result of the policy of 1846.

Road makers will then discover that while the roads have been doubled in extent, the quantity of commodities to be transported has been reduced to little more than one half, and that with diminished immigration and emigration the passage business can contribute but little towards dividends. Road-making will then cease, and the half finished roads will pass into the hands of their creditors. Ship owners will then discover that canal-boats, and sloops, and schooners which furnish aliment for ships, have been steadily diminishing in number. Farmers will cease to have a market for their

* How soon this state of things will occur it is not for me to predict, but the following passage from the *New York Herald* of Jan. 4, would seem to indicate that it could not be very far distant:

"The spirit of speculation is rapidly extending itself, and speculators are becoming more abundant every day. Prices are advancing with rapid strides, and there appears to be no limit to transactions. There appears to be more anxiety to buy at present prices than when the market ruled ten per cent. lower. All the leading fancies have advanced more rapidly during the two past days than at any previous period during our recollection."

products among the makers of roads, and will look in vain around in quest of the great market they once enjoyed among the prosperous miners of coal, smelters of iron ore, and manufacturers of cotton and of wool. Wool will then go to Europe in search of the market that has been destroyed at home. All will seek to produce, and production will then increase, and then again shall we see low prices—lower probably than we ever yet have seen, for the new lands now being forced into cultivation will then begin to give forth their crops to the ruin of the farmers of the older States. The planter will then cease emigrating and try to produce something to sell, and then again he will have large crops, with prices lower than he yet has seen.* He will then cease to rejoice in short crops and high prices. The average crop of the four years, from 1842 to 1846, exceeded by 70 per cent. the average crop of those from 1832 to 1836. Such an increase from 1852 to 1856 would give 3,700,000 bales, but taking it at 3,500,000 bales,† with a domestic consumption under half a million, there will probably be three millions for which to seek a market abroad. At present prices, Great Britain can take a million. At four pence halfpenny a pound, she can consume about twelve hundred and fifty thousand. At what price she will take two millions time alone can determine, but the planter will have reason to rejoice if he obtain within thirty per cent. of the lowest prices he has yet seen.

With the diminished prices of produce the power to purchase foreign commodities will diminish, and towns and cities will find themselves hopelessly in debt for the construction of roads that are valueless when compared with the cost at which they have been constructed. All will then discover that "competion" has led to *doubling* the roads while *halving* the trade. States will then find it difficult to collect taxes, and the Committee of Ways and Means of the Union will be called upon to show how with a revenue of twenty millions they are to provide for an expenditure of fifty. Poverty at the North will contribute to the spread of the anti-slavery feeling, and poverty at the South will cause the increase of the pro-slavery feeling, and we shall then perhaps be ripe for a dissolution of the Union. Such is likely to be the course of events at home, while abroad vituperation of every thing American will become as common as it was 1842, and such will be the closing chapter of the policy of 1846.

If the reader doubt the correctness of these anticipation, I would request him to study the history of 1836, and try if he can find,

* We are now under Southern policy, building up Nicaragua, perhaps to be a rival to Southern planters in the production of their great staple.

"A person in Nicaragua writes that cotton may be cultivated there to any extent, though the want of energy in the inhabitants has reduced the production to a very small quantity. In a single year as much as 50,000 bales, of 300 pounds each, of clean and excellent quality, have been exported."—*Daily News.*

† The excess of the crops of 1842 to 1846 over that of 1837–8 was about twenty five per cent. A similar excess of these four years over the crop of 1847–8 would give above 3,400,000.

in what is now transpiring. any one fact that does not correspond with what then occured. Let him next study the history of England in 1846, and see the effect of the road-making mania there, and then let him read the New York Herald for the opinions there expressed in regard to the conduct of nearly all the merchants of England to whom our citizens were so unfortnnate as to consign cargoes, or for whom they were so indiscreet as to make purchases. Like causes produce like effects. *In writing the history of* 1852, *I have only re-written our history for* 1841.

The radical error of the British system, which is the object of that of 1846 to establish amongst us is, that it is opposed to the first and best feelings of man, the love of association. Man seeks to combine his efforts with those of his fellow man, whereas that system looks to preventing all such combination. It would separate the saw-miller and the grower of timber by thousands of miles. It would compel the farmers of the world to carry their wheat to England to be ground. It *did* compel the planter of India to send his paddy to England that it might there be converted into rice. It does compel the cotton and wool growers of the world to send their products thousands of miles that they may there be spun and woven, and the sugar planter to send his sugar that it may there be refined. It seeks everywhere to destroy the power of association by separating the producer from the consumer of his products, and to compel the farmer to pay all the cost of transportation. It limits the consumption of iron, and thus impedes the advance of civilization. It compels the farmer and the planter to waste on the road the manure that should be returned upon the land. It compels hundreds of thousands to be idle where they should be employed. It has destroyed the productive power of its colonies. It has made of Ireland one vast ruin. It has destroyed and is destroying Scotland, and of England itself it is gradually making one vast mass of poverty, demoralization and crime. The object of the tariff of 1842 was the destruction of the monopoly to which these effects are due. It sought freedom of trade in the only direction in which it can ever be found. It sought to raise the condition of our people, and to promote the immigration of Europeans who should be raised to a level with our own. The object of the tariff of 1846 is the perpetuation of the monopoly which seeks to maintain itself under the cry of "free trade." It seeks to sink our people to the level of those of Europe, and it destroys the inducement to Europeans to seek our shores, compelling them to remain slaves when they would become freemen.

The object of the tariff of 1846 and that of the universal British system is that of establishing "competition" and rivalry, leading to the destruction of the productive powers of man. The object of protection is to obtain for mankind the permission to combine their efforts for the increase of their productive power and the improvement of their common condition. The one looks outward,

and all its movements tend to war and heavy expenditure. The other looks inward, and leads to peace and moderation of expenditure for governmental purposes. The one looks to building up a great monied aristocracy like that of Britain, while the other looks to the extension of sound democracy—perfect self-government.

If we would desire that we ourselves should enjoy freedom, whether of land, labour, or trade, we must seek it in the direction of efficient and perfect protection, and such will probably be the decision of the whole people north of Mason and Dixon's line, after the convulsion of 1842. If we desire that the freemen south of that line should become rich and that the slaves should become free, our object must be sought in the direction of the tariff of 1842.

ARTICLE III.

CIRCULATION OF THE ATMOSPHERE.

The following suggestions on the probabl crelation between magnetism and the circulation of the atmosphere will be found highly interesting, not only to the learned but to all who delight in tracing every phenomena of the physical world to some well defined law of nature.

Meteorology has received less attention from the scientific men of this country than the subject deserves; but we trust that the observations and valuable suggestions of Lieut. Maury will awaken the public mind to a more lively interest in a science, which, besides its practical utility, is calculated to open to the mind more clear and consistent views of the wise and beautiful designs of the Creator. EDITORS.

January 30, 1851.

The discoveries of Faraday in dia-magnetism are calculated to guide me and to illuminate the darkness in which I have found myself so often surrounded, as I endeavored to follow "the wind in his circuits" over the trackless wastes of the ocean.

Oxygen composes one-fifth part of the atmosphere and is magnetic.

The discovery that it is magnetic, presents itself to the mind as a great physical fact which is to serve as the key stone for some of the most grand among the sublime and beautiful structures which philosophy is erecting for monuments to the genius of the age.

The facts elicited from the Wind and Current charts, had already pointed me to the work of some agent whose office in the grand system of atmospherical circulation was neither understood nor recognized.

In following these facts to their legitimate conclusions, and studying all the phenomena that these charts have successively revealed touching the grand system of the distribution of the moisture and the circulation of the atmosphere over the surface of the earth, I have often been induced to suspect that some other agent besides heat and the rotation of the earth on its axis, was concerned in the matter.

Never suspecting the character of this agent, its foot prints have at least been detected; and there is reason to suppose that Faraday has discovered its lurking place to be in the oxygen of the atmosphere.

These charts had enabled me to trace from the belt of calms, near the tropic of Cancer which extends entirely across the seas, an eflux of air both to the North and to the South; from the South side of this belt the air flows in a never-ceasing breeze, called the N. E. trade winds, towards the equator.

On the North side of it, the prevailing winds come from it also; but they go towards the N. E. They are the well known Southwesterly winds which prevail along the route from this country to England in the ratio of two to one.

Now these last named winds are going from a warmer to a colder climate; and therefore it may be supposed that nature exacts from them what we know she exacts from the air under similar circumstances, but on a smaller scale before our eyes, viz: more precipitation than evaporation.

Where then does the vapor, which these winds carry along, come from? was one of the questions suggested by the charts.

We saw that the air of which the N. E. trades winds are comprised, and which comes out of the same zone of calms, as do these Southwesterly winds, so far from being saturated with vapor at its exodus, was dry; the N. E. trade winds are for the most part dry winds;—we perceived that going from a lower to a higher temperature their evaporating powers were increased; that they had to travel in their oblique course, towards the equator, a distance of near 3000 miles; that as a general rule they evaporated all the time, and all the way, and pricipitated little or none on their route, that they were not saturated with moisture until they had arrived fully up to the region of equatorial calms, a zone of constant precipitation.

This calm zone of Cancer borders also, it was perceived, upon a rainy region.

Where then does the vapor, which is here on the northern edge of this zone of Cancer, condensed into rains—and where also does the vapor which the rain winds that flow out on the polar side of

this zone—where? was the oft-repeated question,—does the vapor which is condensed into rains for the extra tropical regions of the North, come from?

It might possibly be taken up by the N. E. trade winds; and it might be the residuum, which, after supplying the equatorial calms with their rain, was carried up in the ascending column of air there, and which residuum was brought back in the upper regions of the atmosphere by the current which we know perpetually blows up there, counter to the trade winds.

We know that there is an upper current of perpetual winds from the equatorial to the tropical calms,—that the volume of air moved by these two upper currents, North and South, to Cancer and Capricorn, is equal to the volume that is felt on the surface, as the N. E. trade winds.

I knew of no law of nature which would forbid the supposition that the air which has been brought down as the N. E. winds to the equatorial calms, should, after ascending there, return by the counter and upper currents to the calm zone of Cancer, here descend and re-appear on the surface as the N. E. trade winds again. I knew of no agent in nature which would *prevent* it from taking this circuit; but while I knew of no agent in nature that would prevent it from taking this circuit, I knew on the other hand, of circumstances which rendered it probable that such in general is not the course of atmospherical circulation—that it did not take this circuit. I speak of the rule, not of the exceptions; these are infinite, and for the most part are caused by the land.

And I moreover knew of facts which greatly strengthen the supposition, that after arriving at the calms of Cancer and descending, the winds which have come in the upper regions of the atmosphere from the Equator, do not return to the Equator on the surface, but continue on the surface towards the pole.

And these are the circumstances which favor the conjecture that the winds which flow in the upper regions of the atmosphere from the Equator to the calms of Cancer, do not, after arriving and descending in the midst of these calms, turn about and go back to the Equator with the N. E. trades: on the contrary, these are the facts and circumstances which give strength to the supposition that they continue on towards the pole, as the prevailing South-westerly winds of the extra tropical North:

We have seen that on the North side of this calm zone of Cancer, the prevailing winds on the surface are from this zone towards the pole; in other words if s represent the total volume of atmosphere which blows on the surface towards the North on the polar side of Cancer, and p the total volume which moves on the surface from the pole towards the calms of Cancer, then s being the rule and p the exception, we shall have $s<p=s'$. Therefore s' is the quantity which must return in the upper regions of the atmosphere from the Arctic regions to the calm zone of Cancer; and if

we take d' as the quantity which comes from the equator in the upper regions of the atmosphere to this same zone of calms, we shall have the momentum of d'' equal to the momentum of s' as proved by nature in the fact that she has established near the tropic, a zone, or belt of calms.

The Cancer zone of calms in the Atlantic ocean is known to American seamen as the "Horse Latitudes," from the circumstance that the vessels formerly engaged in carrying horses from New England to the West Indies, found it so difficult to cross this zone; they would often be detained in the calms for many days, during which time the large cargo of horses would exhaust the stock of water, become frantic with thirst, and to save a part, the rest would have to be thrown overboard; hence the name of "Horse Latitudes" to the calms near the tropics of Cancer, and which I have called by the name of that sign.

This is the place where the upper currents of air represented by s' and d'' meet; they balance each other, produce a calm, and descend to re-appear as surface winds, one blowing to the North and the other to the South from this calm belt.

Now s' could not bring the vapors here which form the rains that are precipitated between this calm belt and the polar regions, because s' had already performed the circuit as a surface wind between this zone and those regions; it had been subjected to a temperature far below zero, and had given out all the moisture that a dew point so very low could extract from it; and as it had returned in the upper regions of the atmosphere where it encountered no fluid surface to replenish it with moisture, it had no vapor on its arrival from the North at the calms of Cancer, to make rains of.

Hence if s' returned to the North as a surface wind after descending in the calm zone of Cancer, it would first have to remain a long time in contact with the sea, in order to be supplied with vapor enough to fill the great rivers and supply the rains for the whole earth between us and the North Pole.

In this case we should have an evaporating region on the North as well as on the South side of this zone of Cancer; but the charts show no such region; I speak exclusively of the ocean.

Therefore I inferred that s' does not come out on the North side of this calm zone, but on the South side; thence to take the circuit of the N. E. trade winds, and to be replenished with vapor; and if it be admitted that such is the general course of s' it must be admitted that d'' must re-appear on the North side of this zone as the prevailing surface wind which precipitates on its way to the Arctic regions, the residuum or vapor that it has taken up in the trade-wind region, and brought from the equatorial calms.

Moreover, if d'' have the vapor which by condensation is to water with showers the extra tropical regions of the Northern hemisphere; nature, we may be sure has provided a guide for conducting d' across this belt of calms and for sending it on in the right way.

Here it is that I saw the foot prints of an agent whose character I could not comprehend. It was this guide.

Heat and cold, the early and the latter rain are not distributed over the earth by chance; they are dispensed no doubt according to design, and in obedience to laws that are as certain and as sure in their operations as the morning stars in their songs of praise.

If there were really a general mingling in the calms of Cancer, of the atmosphere which comes from the North with that which comes from the South—of the moist and the dry air as it descends here to the surface of the earth—if it depended upon chance whether the dry air should come out on this side, or on that, of the calms of Cancer;—or whether the moist air should return whence it came or not;—if such were the case in nature, we perceive that so far from any regularity as to seasons, we should have or might have years of droughts the most excessive, and then again seasons of rains the most destructive; but so far from this we find for each place a mean annual proportion of both, that year after year is preserved with remarkable regularity.

Therefore, seeing reasons why s' and d'' should cross each other in the calms of Cancer, and seeing no reasons why they should not, I was led to the inference that there probably is a node in the circulation of the atmosphere, where the wind from the North meets the wind from the South, and that each after a pause, continues on its course and returns again to complete his circuit. The fact, it appeared to me, was probable, but the cause a mystery; that is, did this crossing of currents not take place, here would be a barrier in the atmosphere: and we, the inhabitants of the extra tropical regions of the North would have an atmosphere, between the calms of Cancer and the pole, always to breathe.

Having thus shown that there is no reason for supposing that the upper currents of air when they meet over the calms of Cancer and Capricorn, are turned back to the equator; but having shown that there is reason for supposing that the air of each current after descending, continues on in the direction towards which it was traveling; we may go farther, and by a similar train of circumstantial evidence, afforded by the charts and other sources of information, show that the air moved on the surface by the two systems of trade winds, when arrived at the belt of equatorial calms, and having ascended, continues on thence, each current towards the pole which it was approaching while on the surface.

There is no reason for supposing that the atmosphere does not pass freely from one hemisphere to another; on the contrary many reasons for supposing that it does, present themselves.

If it did not the proportion of land and water, and consequently of plants, and warm blooded animals being so different in the two hemispheres, we might imagine that the constituents of the atmosphere in them would in the course of ages probably become differ-

ent, and that consequently in such a case man could not safely pass from one hemisphere to the other.

I considered the manifold beauties in the whole system of terrestrial adaptations:—I reflected what a perfect and wonderful machine is this atmosphere:—how exquisitely balanced and beautifully compensated it is in all its parts,—we all know that it is perfect:—that in the performance of its manifold offices it is never once left to the guidance of chance—no, not for a moment:—therefore I was led to ask myself why the air of the N. E. trades when arrived at the zone of equatorial calms, should, after ascending, rather return to the North than the South. Where and what is the principle upon which its course was decided.

Here again I found circumstances which induced me to suppose it probable that it neither turned back to the North, nor mingled with the air which came from the region of the S. E. trades, ascended, and then flowed indiscriminately to the North or the South.

But I saw reasons for supposing that what came to the equatorial calms as N. E. trade winds, continued to the South as an upper current; and that what had come to the same zone as S. E. trade winds, ascended and csntinued over into the Northern hemisphere as an upper current, bound for the calm zone of Cancer.

And these are the principal reasons upon which this supposition was based.

At the seasons of the year when the sun is evaporating most rapidly in the Southern hemisphere, the most rain is falling in the Northern. Therefore I supposed that much of the vapor which is taken up there is precipitated here.

The evaporating surface in the Southern hemisphere is greater, much greater than that in the Northern: still all the great rivers are in the Northern hemisphere;—the Amazon being regarded as common to both. And this, as far as it goes, is corroborative of the above.

Independently of other sources of information, the charts taught me to believe that the mean temperature of the tropical regions was higher in the Northern than in the Southern hemisphere; for they show that the difference is such as to draw the equatorial edge of the S. E. trades far over on this side of the equator, and to give them force enough to keep the N. E. trade winds out of the Southern hemisphere almost entirely.

Consequently, as before stated, the S. E. trade winds being in contact with a more extended evaporating surface, and continuing in contact with it for a longer time or through a greater distance, they would probably arrive at the trade wind place of meeting, more heavily laden with moisture than the others.

Taking the laws and rate of evaporation into consideration, I could find no part of the ocean of the Northern hemisphere from which, according to the indication of the charts, the sources of the

Mississippi, the St. Lawrence and the other great rivers of our hemisphere could be supplied.

It appeared to me, therefore, that the extra-tropical regions of the Northern hemisphere stood in the relation of a condenser to a grand steam machine, the boiler of which was in the region of the S. E. trade winds, and that the trade winds of this hemisphere performed the like office for the regions beyond Capricorn.

The calm zone of Capricorn is the duplicate of that of Cancer, and the winds flow from it as they do from that: both North and South: with this difference, that on the polar side of the Capricorn belt they prevail from the N. W., instead of the S. W., and on the equatorial side from the S. E., instead of N. E.

Now if it were so, that the vapor of the N. E. trade winds were condensed in the extra-tropical regions of the Southern hemisphere, the following path, on account of the effect of diurnal rotation of the earth upon the course of the winds, would represent the mean circuit of a portion of the atmosphere moving according to the general system of its circulation over the Pacific ocean, viz: coming down from the North as an upper current, and appearing on the surface of the earth in about longitude 130° W., and near the tropic of Cancer, it would here commence to blow the N. E. trade winds of that region.

Its course would be towards the equator somewhat in the direction of the King's Mill group of Islands. Meeting no land in this long oblique track over the tepid waters of a tropical sea, it would, somewhere, to the East of these Islands, arrive at the belt of equatorial calms which always divides the N. E. from the S. E. trade winds.

Here depositing a portion of its vapor as it ascends, it would with the residuum take, on account of diurnal rotation, a course in the upper regions of the atmosphere to the S. E. as far as the calms of Capricorn. Here it descends and continues on towards the coast of South America in the same direction, appearing now as the prevailing N. W. wind of the extra-tropical regions of the Southern hemisphere.

Travelling on the surface from warmer to colder regions, it must, in this part of its circuit, precipitate more than it evaporates.

Now this is the route by which, on account of the land in the Northern hemisphere, the N. E. trade winds have the fairest sweep over that ocean. This is the route by which they are longest in contact with an evaporating surface; the route by which all circumstances are most favorable to complete saturation; and this is the route by which they can pass over into the Southern hemisphere, most heavily laden with vapors for the extra-tropical regions of that half of the globe; and this is the supposed route which the N. E. trade winds of the Pacific take to reach the equator, and to pass from it.

Accordingly, if this process of reasoning be good, that portion

of South America between the calms of Capricorn and Cape Horn, upon the mountain ranges of which this part of the atmosphere, whose circuit I am considering as a type, first impinges, ought to be a region of copious pricipitation. I accordingly turned to the hyetography of Berghaus and Johnson, and find it stated on the authority of Captain King, that upwards of 12* feet of rain fell there in 41 days!

Passing the snow-clad summits of the Andes, this same wind tumbles down upon the Eastern slopes of the range, and then traverses the almost rainless and barren regions of Patagonia and South Buenos Ayres.

These conditions, the direction of the prevailing winds and the amount of precipitation were regarded as evidence afforded by nature, if not in favor, certainly not against the conjecture that such had been the voyage of this vapor through the air. At any rate here was proof of the immense quantity of vapor which these winds of the extra-tropical regions carry along with them towards the poles, and I could imagine no other place than that suggested, whence these winds could get so much vapor.

I am not unaware of the theory or of the weight attached to it, which requires precipitation to take place in the upper regions of the atmosphere on account of the cold there irrespective of proximity to mountain tops and snow-clad hills.

But the facts and conditions developed by these charts are in many respects irreconcilable with that theory. With a new system of facts before me, I have, independent of all preconceived notions and opinions, set about to seek among them for explanations and reconciliations.

Arrived at this stage in the process of deduction and finding conformity, the next step was to trace back the vapor that supplies the sources of the Mississippi river and its tributaries with rains, to its place in the ocean whence it came.

It rains more in the valley drained by that river than is evaporated from it again. The difference for a year is the volume of water annually discharged by that river into the sea.

At the time and place that the vapor which supplies this immense volume of water was lifted by the atmosphere up from the sea, it was reasoned that the thermometer stood higher than it did at the time and place where it was condensed and fell down as rain in the Mississippi valley.

I looked to the South for the springs in the sea which supply the fountains of this river with rain. But I could not find spare evaporating surface enough for it in the first place; and if the vapor, I could not find the winds which would convey it to the right place.

The prevailing winds in the Caribbean sea, and southern parts

* 153 inches.

of the Gulf of Mexico are the N. E. trade winds. They have their offices to perform in the river basins of tropical America, and the rains which they may discharge into the Mississippi valley now and then are exceptions, not the rule.

The winds from the North cannot bring vapors from the great lakes to make rains for the Mississippi, for two reasons; first: the basin of the great lakes receives from the atmosphere more water in the shape of rain than they give back in the shape of vapor. The St. Lawrence river carries off the excess.

2d. The mean climate of the lakes is colder than that of the Mississippi valley; and therefore, as a general rule, the temperature of the Mississippi valley is unfavorable for condensing vapor from that quarter.

It cannot come from the Atlantic, because the greater part of the Mississippi valley is to the westward of the Atlantic ocean. The winds that blow across it go to Europe with their vapors; and in the Pacific, from the parallels of California down to the equator, the direction of the wind at the surface is from, not toward, the basin of the Mississippi. Therefore it seemed to be established with some degree of probability—or if that expression be too strong—with something like apparent plausibility, that the rain winds of the Mississippi valley, as the general rule, do not get their vapors from the North Atlantic ocean, nor from the Gulf of Mexico, nor from the great lakes, nor from that part of the Pacific ocean over which the N. E. trade-winds prevail.

The same process of reasoning which induced me to look into the trade-wind region of the Northern hemisphere for the sources of the Patagonian rains, induced me to look into the trade-wind regions of the South Pacific ocean for the vapor springs of the Mississippi.

I therefore last summer addressed a circular to the farmers and planters of the Mississippi valley, requesting to be informed as to the direction of the rain winds of each locality, and with the view of acquiring some idea as to the general hygrometric condition of the atmosphere, I asked also to be informed as to the kind and quality of fruits and the like.

To this I have received the following replies:—

From J. M. Janney, Warren county, Ohio.
Lat. 39° 30′ N.; Long. 84° W.

Winds from the southwest, with but few exceptions, bring rain; this is the result of eleven and a half years' observation.

Farm situated between the Miami rivers. There are no mountains nearer than the Cumberland and Alleghany; the one lying in a southeast direction, and the other east of this locality. The nearest point to these elevations is perhaps not short of 225 or 250 miles. Lake Erie, situated about 100 miles north-east of us, is the nearest sheet of water.

The fruits are aples, pears, cherries, strawberries, currants, gooseberries, quinces, and peaches. Grapes also thrive well. The products of the soil are maize, wheat, oats, flax, rye, and potatoes.

I may observe that the cold south winds often prevail through the winter; during the spring *cool*, rather piercing northwest winds frequently assail us; during the prevalence of which drought is almost sure to exist. Snow-storms generally come from the southwest, but occasionally we have a heavy storm of this kind from the east. To me it is obvious that the winds that bring us rain sweep through the great Mississippi and Ohio vallies in their course northeast. [That is, they are southwest winds.]

From Wm. J. Payne, near Rushville, Rush county, Indiana.
Lat. 39° 30′ N.: Long. 85° 30′ W.

The winds are various: the west wind sometimes brings most rain during some years; but the southwest winds are most prevalent, and bring rain the greatest number of years.

Fruits are, peaches, aples, pears, and cherries.

Productions—Corn, wheat, oats, rye, &c.

From Louis Moore, Carrollton, Mississippi.
Lat. 33° 30′ N.; Long. 90° W.

On an average, the winds that bring us rain are the southwest. Farm situated in a hilly district, some 150 miles from the sea-coast. The most common fruits are apples, peaches, &c., and melons in abundance.

Agricultural staples are cotton, corn, oats, potatoes, &c.

From Turner Vaughan, La Guardo, Tennessee.
Lat. 36° 30′ N.; Long. 86° 30′ W.

Winds S. by W. bring the most rain, and W.N.W. the most storms; the latter, however, are unfrequent here, and very partial, owing, perhaps, to remoteness from the *sea*.

Whenever the lightning appears to linger in the North at eventide, rain almost invariably follows speedily; not so in the South.

Farm situated twenty-five miles above Nashville; surface undulating, abounding in lime-stone. Hemp and corn do well, tobacco also; wheat and cotton inferior; grapes tolerable.

From Thomas Meaux, Amelia county, Virginia.
Lat. 37° 20′ N.; Long. 78° W.

Point of observation about thirty miles W.S.W. from Richmond.

Prevalent winds in spring, summer and autumn from S.W., rain falling in showers during these seasons. Gusts and tornadoes, with black clouds come from N.W. in late summer; protracted rains in spring and fall come from N.E.

Prevalent winds in winter E. to W. northwardly. Rains and snows in winter from N.E. Lowest observed temperature 6° Fah-

renheit, at sunrise, Jan. 29, 1844; highest, 97°, noon, in shade, 20 July, 1844.

From Willis Fawcett, St. Charles, Missouri.
Lat. 39° N.; Long. 90° 30′ W.

Wind from any point of the eastern half of the horizon will bring rain generally, after blowing twelve hours. It frequently happens that we have winds in a dry time to blow much longer, even several days, from that direction, without rain; but on the wind's shifting to the opposite side, we are sure of rain. I think our rains during summer come most frequently from S.E. Wind from the S.W. is generally accompanied by good dry weather. West and N.W. are dry. I have noticed that thunder and lightning in the north is almost invariably followed here by storms of rain and hard wind within twelve or twenty-four hours.

My farm is on an alluvial prairie plain, (probably formed by the washings of the Missouri and Mississippi) six miles below St. Charles.

The apple is our main dependence. Peaches also flourish finely; as do plums, cherries, (except the black,) strawberries, gooseberries, wild and cultivated. Wheat and corn are the principal productions. Timothy hay will soon be exported from our neighborhood to a considerable extent. I cultivate wheat and corn almost exclusively.

Thus showing, as far as this evidence goes, that the S.W. winds —the winds suggested by the charts—are, except in Western Missouri, the rainy winds. These winds, like those between the same parallels upon the ocean, are going from a higher to a cooler temperature; and these winds in the Mississippi valley not being in contact with the ocean, or with any evaporating surface to supply them with moisture, must bring the moisture with them from some sea or another.

Therefore though it may be urged, in as much as the winds which brought the Patagonian rains came direct from the sea, that they therefore took up their vapors as they came along; yet it could not be so urged in this case; and if these winds could pass with their vapors from the equatorial calms through the upper regions of the atmosphere to the calms of Cancer, and then as surface winds into the Mississippi valley, it was not perceived why the Patagonian winds should not bring their moisture by a similar route. These last are from the N. W., from warmer to colder latitudes; therefore being once charged with vapors they must precipitate as they go, and take up less moisture than they deposit.

This was circumstantial evidence. No fact had yet been elicited to prove that the course of the atmospherical circulation suggested by my investigations is the actual course in nature. It is a case

in which I could yet hope for nothing more direct than such conclusions as might legitimately flow from circumstantial evidence.

My friend Lieut. De Haven was about to sail in command of the American Expedition in search of Sir John Franklin. Infusoria are sometimes found in sea-dust, rain-drops, hail-stones or snow-flakes; and if by any chance it should so turn out that the *locus* of any of the microscopic infusoria which might be found descending with the precipitation of the Arctic regions should be identified as belonging to the regions of the S. E. trade winds, we should thus add somewhat to the strength of the very slender clue by which we were seeking to enter into the chambers of the wind and to "tell whence it cometh and whither it goeth."

It is not for man to follow the "wind in his circuits," and all that could be hoped, was after a close examination of all the facts and circumstances which these charts have placed within my reach, to point out that course which seemed to be most in accordance with them, and then having established a probability or even a possibility as to the true course of atmospheric circulation, to make it known and leave it for future investigations to confirm or set aside.

It was at this stage of the matter* that my friend Baron von Gerolt, the Prussian Minister, had the kindness to place in my hand Ehrenberg's work, "Passat-Staub und Blut-Regen."

Here I found the clue† which I hoped, almost against hope, De Haven would place in my hands.

That celebrated microscopist reports that he found South American infusoria in the blood-rains, and sea-dust of the Cape Verd Islands,—Lyons, Genoa, and other places.‡

Thus confirming as far as such evidence can, the indications of the "Wind and Current Charts," and increasing the probability that the general course of atmospherical circulation is in conformity with the suggestions of the charts as I had interpreted them, viz: that the trade winds of the Southern hemisphere after arriving at the belt of equatorial calms ascend and continue in their course towards the calms of Cancer as an upper current from the S. W., and that after passing this zone of calms, they are felt on the surface as the prevailing S. W. winds of the extra-tropical parts of our hemisphere; and that for the most part they bring their moisture with them from the trade wind regions of the opposite hemisphere.

Continuing on towards the North pole from the S. W. they enter the Arctic regions on a spiral curve, continually lessening the gyrations until, whirling about in a *direction contrary to the*

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* See my letter to him, paper F.; also, paper read by me before the American Association at its meeting in Charleston, March, 1850.

† *Vide* paper F.

‡ *Vide* paper G, "Passat-Staub, etc." p.—

hands of a watch, this air ascends and commences its return as an upper current towards the calms of Cancer.

It returns to this zone from the opposite direction, N. E., by which it approached the pole.

The atmosphere in this part of the circuit is moving in the direction called s' in a previous part of this paper.

Arrived at the calms of Cancer, s' meets d'' in the upper regions of the atmosphere.

They both descend—and the fact that the barometer stands higher here* than upon any other parallel, shows that here there is an increased atmospheric pressure, caused in part by accumulation produced by the opposing forces of s' and d'' ; and in part by the downward currents.

Having descended, s' is forced out on the equatorial side of the zone and appears on the surface as D — the N. E. trade winds—and so continues until it reaches the belt of equatorial calms.

Here then is precipitation, an ascent of atmosphere, and a fall of the barometer: D now becomes d or an upper current flowing in a S. E. direction—i. e. from N. W. towards the zone of the calms of Capricorn. Here it is met by the upper current from the Antarctic regions, descends with a rise in the barometer again, and appears on the polar side of this zone of calms, as D' —the prevailing N. W. surface winds in the extra-tropical regions of the Southern hemisphere.

D' now approaches the Antarctic regions in a *spiral, gyrating with* the hands of a watch and contracting its evolutions as it draws nearer and nearer the pole, where theoretically there is another atmospherical node in which D' ascends with a low barometer, and commences its return towards the equator as d' in the upper regions of the atmosphere.

The same cause—diurnal rotation—which made the D' on the surface to approach from the N. W., now operates to make it return as d' in the direction whence it came.

Arriving in the upper regions at the calm zone of Capricorn d meets d' ; the two descend, and d' continues to flow in towards the equator as D', the S. E. trade wind.

Arrived at the zone of equatorial calms, it ascends, and continues thence in the upper regions of the atmosphere as d', until it reaches the calm zone of Cancer. Here it descends, and continues on as the S. W. passage winds of the Northern hemisphere, whose circuit has been already described.

Thus, at the risk of repetition and of being thought tedious, I have described the progress which the Wind and Current Charts had enabled me to make in the theory of atmospherical circulation ; and I have presented that theory as far as it had been developed in my own mind, when I received yesterday No. 1, vol i, 4th series,

* Humboldt.

of the London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science, containing a synopsis of Dr. Faraday's "Experimental Researches in Electricity," 24th, 25th, 26th, and 27th series; and also the letter of Prof. Von Feilitzsch on the *Physical distinction of Magnetic and Diamagnetic Bodies.*

This account, though meagre, is the first account that I have seen of the Doctor's discoveries relative to the magnetism of the atmosphere.

A new era in our knowledge of the laws and the agents concerned in the general system of atmospherical circulation will probably be dated from these discoveries.

With the accounts of them before me, I feel somewhat in the condition of the tempest-tossed mariner who has been buffeting with the waves in storm, clouds, and darkness, until he feels himself almost bewildered and lost in the mist that surrounds him; when suddenly a light appears, and, like the grateful mariner, I wished, before taking a fresh departure, to bring up my reckoning, and to ascertain how far I was out, in order to show how great was the service rendered by the sympathising hand which put forth that light.

Dr. Faraday has shown that, as the temperature of oxygen is raised, its paramagnetic force diminishes, being resumed as the temperature falls again.

"These properties it carries into the atmosphere, so that the "latter is, in reality, a magnetic medium, ever varying, from the "influence of natural circumstances, in its magnetic power. If a "mass of air be cooled, it becomes more paramagnetic; if heated, "it becomes less paramagnetic, (or diamagnetic,) as compared "with the air in a mean, or normal condition."*

Now, is it not more than probable that here we have in the magnetism of the atmosphere that agent which guides the air from the South through the calms of Capricorn, of the equator, and of Cancer, and conducts it into the North; that agent which causes the atmosphere with its vapors and infusoria to flow above the clouds from one hemisphere into the other, and whose foot-prints had become so palpable?

With the lights which these discoveries cast, we see why that air which has completed its circuit to the whirl† about the Antarctic regions should then, according to the laws of magnetism, be repelled from the South, and attracted by the opposite pole towards the North.

And when the S. E. and the N. E. trade winds meet in the equatorial calms of the Pacific, would not these magnetic forces be sufficient to determine the course of each current:—bringing the former with its vapors of the Southern hemisphere over into this by the courses already suggested?

* Phil. Mag. and Journal of Science, 4th Series, No. 1. January, 1851, page 73.
† "It whirleth about continually."—*Bible.*

This force, and the heat of the sun, would propel it to the north. The diurnal rotation of the earth propels it to the east; consequently its course first through the upper regions of the atmosphere, and then on the surface of the earth, after being conducted by this newly-discovered agent across the calms of Cancer, would be from the southward and westward to the northward and eastward.

These are the winds which, on their way to the North, from the South Pacific, would pass over the Mississippi valley, and they appear to be the rain winds there. Whence then, if not from the trade-wind regions of the South Pacific, can the vapors for those rains come?

According to this conjecture, and not taking into account any exceptions produced by the land and other circumstances upon the general circulation of the atmosphere over the ocean, the S. E. trade-winds which reach the shores of Brazil near the parallel of Rio, and which blow thence for the most part over the land, should be the winds which, in the general course of circulation, would be carried towards northern Africa, Spain, and the south of Europe.

They might carry with them the infusoria of Ehrenberg, but, according to this theory, they would be wanting in moisture. Now, those portions of the old world are for the most part dry countries, receiving but a small amount of precipitation.

Hence the general rule: those countries to the north of the calms of Cancer which have large bodies of land situated to the southward and westward of them in the S. E. trade-wind region of the earth should have a scanty supply of rain, and *vice versa.*

Now, the extra-tropical part of New Holland, comprises a portion of land thus situated in the Southern hemisphere. Tropical India is in its N. E. trade-wind region, and should give it a slender supply of rain. But what modifications the monsoons of the Indian ocean may make to this rule, or what effect they may have upon the rains in New Holland, my investigations in that part of the ocean have not been carried far enough for a decision.

Taking up the theory of Ampere with regard to the magnetic polarity induced by an electrical current, according as it passes through wire coiled *with* or coiled *against* the sun, and expanding it in conformity with the discoveries of Faraday, we perceive a series of facts and principles which, being applied to the circulation of the atmosphere, make the conclusions to which the charts have led me touching the continual "whirl" of the wind in the Arctic regions *against*, and in the Antarctic *with the hands of a watch*, very significant—much more so than I supposed them to be.

In this view of the subject we see light springing up from various sources, by which the shadows of approaching confirmation are clearly perceived. One such source of light have we from the university of Greifswald, in Prussia.

Likening the atmosphere with its magnetic spirals of oxygen to

the coils of a wire, and the poles of the earth as the ends of the helix used by Professor Von Feilitzsch, we might almost fancy that he was experimenting expressly with the view of throwing light upon the general course of atmospherical circulation.

"If," says he in his letter to Dr. Faraday, "we observe two such "neighboring particles near the external south pole. then will the "more near repel a south pole with the intensity s; the more distant "will turn to a north pole with the intensity n', but in such a "manner that $n' < s$. But outwardly these two excited magnet-"isms act with the difference of their power $s - n'$; but this is "in one case *south polar*, consequently of the same kind as the "exciting south pole. The contrary will take place near the north "pole, so that the *disengaged magnetism distributed over the "bar becomes south polar on that half which is turned to the "south pole, but north polar on the other half that is turned to "the north pole.* A substance where this takes place is *diamag-"netic*, it places itself equatorial.

"When the bar of a magnetic substance is so qualified that the "separating action of the molecules on each other must be taken "into consideration, then it can become so strong that the mole-"cules in the middle of the substance are more strongly magnetic "than towards the ends. If we observe once more two such par-"ticles near two such particles near the external South pole, the "South pole of the nearest will tend to recede by an intensity $\frac{s}{1}$ "from this external South pole, but the more distant will turn "towards it a North pole of the intensity n_1', but in such a man-"ner that $n'_1 < \frac{s}{1}$. Outwardly the two will act with the intensity "$n'_1 - \frac{s}{1}$. but this is North polar, therefore of a contrary nature to "the exciting South pole. The contrary will take place near the "pole so that the *disengaged magnetism distributed over the "bar becomes North polar on the half that is turned to the "South pole, but South polar on that half which is turned to-"wards the North pole.* A substance where this takes place is "*magnetic*, it places itself *axial*."*

"Applying the former to the theory of Ampere, I was startled "because it has hitherto taught only that currents which are paral-"lel and directed in the same way attract, but if they are parallel "and not directed in the same manner they are repulsive; there-"fore, that a current moving in the direction of the hand of a "watch, in a spiral produces a South pole on the entrance point in "the spiral, but a North pole on the egression point. Hitherto "only such spirals have been constructed in which the current in "every winding shows an equal intensity."

"But I tried to arrange spirals of the following kind:—one of "them is in such a way constructed that on two copper wires are "soldered to each of them, fifteen thin wires covered over with silk.

* Page 43.

"The first winding backwards over the copper wire, i. e. the first "convolution of the helices, beginning at the end and proceeding "towards the centre is with all the fifteen wires, the second wind- "ing is only wound with 14 threads, whilst the fifteenth is car- "ried along the axis, &c.; consequently every convolution of "the fifteen windings has a thread less, and the ends of all the "other threads have direction of the axis. The ends of the fif- "teen threads are soldered in the middle, and the two thick wires "without touching each other, are so bent that they can be sus- "pended in the little cups of the apparatus of Ampere, then a "current passing through the spiral will divide itself in such a "manner that it is most strong on the external ends of the spiral "but decreases more and more to the middle. If the windings of "the spiral took place in the direction of the hands of a watch, "then the end of it where the current enters will become a South "pole, but a *North pole* kept parallel to the spiral *will repel it*, "only the final convolution will be attracted, and it represents the "disengaged magnetism of the final surface."

"A second spiral is wound like that described only with this "difference that the strongest convolutions are in the middle, and "the feeblest near the ends. This spiral will be attracted by the "North pole of a magnet over the half in which the current moves "at first or enters, but the other half will be repulsed by it. The "third spiral has the winding the same strength over the whole "extent; it is indifferent to a magnet pole which is not too near "and only the final convolutions are attracted or repulsed."

"Therefore it is permitted to enlarge the theory of Ampere in "this manner:—

"—If an electric current passes through a spiral in the direc- "tion of the hand of a watch and,

"*a* If the current is more feeble in every winding as it is nearer "to the centre of the spiral, then that half is attracted by a South "pole in which the current enters except the first winding.

"*b* But if the current is stronger in every winding as it is nearer "to the centre of the spiral, then that half is repulsed by a South "pole in which the current enters including the first winding.

"The contrary will be the case for that half in which the cur- "rent leaves the helix and likewise for the North pole of the mag- "net opposed."†

Attentively considering the experiments of the Professor of Greifswald, we may trace an analogy between his spirals and the spirals which the currents of the wind in "his circuits" describe about the earth. At the South polar calms, the atmospherical spiral is with the hand of the watch, and as in the case of a spiral so wound about its helix the magnetism is South polar; and so *mutatis mutandis* for the regions of the North polar calms.

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† Page 49, 50.

May we not look therefore to find about the North and South magnetic poles these atmospherical nodes or calm regions, which I have theoretically pointed out there? In other words, are not the magnetic poles of the earth in those atmospherical nodes, the two standing in the relation of cause and effect, the one to the other?

And have we not a clue already placed in our hands by which the motion of the circular storms of the Northern hemisphere which travel *against*, and those of the Southern which travel *with* the hands of a watch, seems to be connected with the like motion of the wind of each hemisphere in its circuit about its pole? and will not this clue when followed up lead us into the labyrinths of atmospherical magnetism for the solution of the mystery?

Indeed so wide for speculation is the field presented by these discoveries that we may in some respects regard this great globe itself with its "cups" and spiral wires, of air, earth and water, as an immense "pile" and helix, which being excited by the natural batteries in the sea and atmosphere of the tropics, excites in turn its oxygen, and imparts to atmospherical matter the properties of magnetism.

Thus, though it be not proved as a mathematical truth that magnetism is the power which guides the storm from right to left, and from left to right, which conducts the moist and the dry air each in its appointed paths, and which regulates the "wind in his circuits," yet, that it is such a power, is rendered so very probable that the onus is now shifted, and it remains not to prove, but to disprove that such is its agency.

Respectfully &c.,
M. F. MAURY,
Lieut. U. S. N.

Hon. W. A. Graham,
Secretary of the Navy.

Article IV.

ST. LOUIS AND TENNESSEE RIVER TRADE.

The rapid increase of population in the West has forced upon St. Louis a commerce and growth unparalleled in the history of modern cities: and instead of expending her means in opening new avenues of commerce, her capital and energies have been employed in erecting buildings and preparing suitable accommodations for the trade which has sought her port unsolicited. While this condition remains unchanged it is not to be expected that our citizens will interest themselves to any considerable degree in seeking out

new markets: but the mighty movement that is now going on in opening new commercial channels, east of the Mississippi, should admonish us to prepare for a contest, which will be necessary to retain unimpaired the natural advantages of St. Louis over all other points in the valley of the Mississippi. No time should be lost on the part of our citizens in forming and establishing commercial relations with every point on the Mississippi and its tributaries accessible by steamboat navigation. We should not wait as formerly for others to seek our market, we should seek theirs: this is the principle pursued by all other commercial towns and cities, with the exception of New Orleans, and even she begins to feel the necessity of adopting it to protect her commerce against the encroachments of the eastern and southeastern markets.

We were much pleased some months ago to learn that a movement had been set on foot, which originated, we believe, at Paducah, to open a trade between St. Louis and the Towns on the Tennessee river by establishing a line of steamboats. The project was well timed; and had it been carried into effect our citizens would now have been in the enjoyment of a trade calculated to benefit the manufacturers and builders as well as the merchants.

Notwithstanding the leading staple of the Tennessee river trade, cotton, goes to New Orleans, yet the imports of that region are for the most part purchased in other markets. Louisville has enjoyed, almost exclusively, the trade of the Tennessee river ever since the settlement of the country. The commerce between Louisville and North Alabama has generally employed from two to three steamboats and we believe there are four in that trade at present. That class of articles purchased at Louisville for the Tennessee river trade ought, with a few exceptions, to be afforded on better terms at St. Louis than there.

We should regard St. Louis as the better market for the purchase of flour, refined sugar, potatoes, and lead, in all its forms: and, indeed, all commodities produced here or imported from or through New Orleans, ought to be afforded somewhat cheaper than at Louisville.

Some portions of the country bordering on the Tennessee, abounds in yellow pine of a better quality than any which comes to this market, and were a line of steamers established between this city and that river, sufficient quantities of lumber would be produced to ensure full cargoes on their return to this port. We speak advisedly on this point. We know the country from actual observation, and we have been informed by a gentleman of much experience in business who is engaged in sawing lumber near the Tennessee, that he could, notwithstanding the expense of re-shipping at Paducah, well afford to deliver pine plank in this market at the ruling prices of last year.

So long as St. Louis continues to grow as it has done for the last

seven years, the lumber trade may be regarded as of primary importance to its prosperity.

Owners of real estate are especially interested in this commodity; and we are persuaded, that if the true value of the lumber trade of the Tennessee river was understood by that class of our citizens, they would be found willing to afford all the means necessary for establishing a line of steamers for its encouragement.

We are aware that it requires time, and a considerable degree of enterprise to divert commerce from long established channels, and in opening a trade with the Tennessee river too much should not be expected in the beginning. It will require some time for those at each end of the line to become acquainted with the wants of each other. New commercial relations must be formed and confidence established in the efficiency and permanency of the line; and, consequently, little profit should be expected from the steamboat stock during the first season: but the loss of profits on a few thousand dollars of stock should be regarded as nothing when compared with the extension of our commerce to a distance of from to five hundred miles in a new direction.

The trade between St. Louis and the Tennessee river can never become of much importance, so long as it is necessary to unload, store, and re-ship at Paducah. A through line of transportation must be established; or we must leave the entire commerce of one of the largest tributaries of the Mississippi to the enjoyment of others.

But the people in the region of the Tennessee river are not less interested in this trade than are those of St. Louis; and, from the interest manifested by certain individuals here, we are persuaded that, were a little exertion made there, the line might be established by small subscriptions for stock that would not materially incommode the subscribers though it should be lost. What say our friends at Eastport, Tuscumbia, and Florence? We should delight to see their old familiar names in our daily lists of arrivals and departures of steamboats.

Article V.

In a few introductory remarks, made by us in 1849, in reference to an article on "Cotton mills by cotton growers," from the pen of a highly valued correspondent, we concluded by saying: "When the South gets fairly under way, the people of the United States will soon spin and weave all the cotton that our country can produce: and long before the close of the present century, we shall become large importers of raw cotton, from South America and other parts of the world." In connection with this subject, we find in a late number of the Louis-

ville Journal a statement of the charges incident to the transportation of cotton from the American fields to the European mills, which are shown to amount to more than the cost of manufacturing the article into coarse cloth at home. This fact is regarded by the able Editor of that valuable paper as calculated to sustain our "predictions" relating to the cotton trade; and we thank him for reminding us that our statement was made in general terms, unfortified by facts or arguments. Having previously discussed the subject of manufacturing cotton in the South and West in DeBows Commercial Review, and, also, in our Journal, we did not deem it profitable to reiterate our arguments, when introducing an article from another pen relating to the same matter. Nor should we bring the subject now before our readers but for the reason that we believe there are other arguments in favor of manufacturing cotton in the southern States more potent than those derived from the cost of transporting it to foreign mills.

It may be safely affirmed that the production of cotton has reached its maximum in the States east of the Mississippi river; and many years will not elapse before the maximum will be attained in Texas also. And, when the production arrives at this point, a large portion of the subsequent increase in the number of laborers must be transferred to the mills, as the only place where their labor can be made profitable. Abstract theories respecting the advantages of free trade with foreign nations may lead men into the fallacy of relying almost exclusively upon other countries for commodities which they could produce as cheap at home so long as they can employ all their labor in the production of cotton; but, when labor becomes redundant for this purpose, and the practical question of employment comes up, no further argument will be required to convince the planter of the advantages of spinning and weaving his own crop. And therefore nothing is more clear to our view than that the manufacturing of cotton in the Southern States will increase in proportion to the future increase in the number of laborers until the entire crop shall be manufactured within the limits of the slave States—excepting a small quantity which may perhaps be sent to other countries to be wrought into very fine fabrics. We find it generally admitted that Great Britain, France, and the Eastern States will continue to manufacture the finer fabrics; and, that the operations of the South will be confined to the production of coarse goods; but we can perceive no sufficient reason for this opinion. The mills in the South are now operated principally by free laborers; this is a natural consequence of the present condition of that region. Nearly all the good land is in possession of the slave holders: and free laborers seek employment in the cotton mills rather than cultivate land that will scarcely yield them a subsistence. And we know of no

reason why these free operatives should not become as skilful in spinning and weaving as the English or French. In time, slave laborers will take their places in the coarser work; and they will be transferred to the establishments designed for the production of finer fabrics, and thus every quality of goods will be embraced in the list of Southern manufactures.

None of the thousand estimates made as to the relative cost of free and slave labor are applicable to the subject of manufacturing cotton in the South; for it must be borne in mind that the time is rapidly approaching when the policy of manufacturing will turn upon the question whether the redundant labor shall be profitably employed or emancipated. The slave population doubles in about twenty-five years: and we hazard the prediction that three fourths of the crop will be manufactured in the South and West within that period, dating from the present time. This result flows naturally from certain laws, inherent in the institution of slavery as it exists in the United States; and nothing in the ordinary course of human events will impede their operation, except the acquisition of additional territory in the South.

The far seeing economists and Statesmen of Great Britain are looking to this result; and anxiously seeking the means of protecting the labor, machinery and commerce of that country against its consequences. The issue of the final struggle between Great Britain and this country for commercial supremacy is involved in the direction to be given to Southern labor: this great battle is to be fought with spindles and shuttles across the broad Atlantic; and upon the skilful use of these novel instruments of war depends a prize more briliant than any ever won by Grecian or Roman arms. To the Southern States, if they are true to themselves, will belong the glory of achieving this great victory for our common country; and long may they enjoy its benefits.

The following statement of the charges upon a shipment of cotton from the United States to England with the remarks of the Editor of the Louisville Journal, will be found interesting and useful to the provision grower of the West as well as to the cotton planter of the South: for from these facts he will be able to estimate the price he pays for the privilege of competing with the labor of Russian serfs in the British markets. EDITORS.

WHAT THE COTTON PLANTER PAYS HIS CARRIERS AND FACTORS AND WHAT HE MAY SAVE BY BRINGING THE SPINDLE AND THE LOOM NEARER THE COTTON.

It was stated in the New York Courier and Inquirer, some months since, that the unnecessary transportation of our cotton for manufacture in England was more than the home cost of converting it

into coarse fabrics. If such is the fact, the predictions of the able editor of the Western Review at St. Louis may have been well considered. He says that the United States will soon work up their own cotton and import the staple from other countries. The statement alluded to is in general terms and requires the items of cost to carry conviction to the minds of those who doubt our capacity to become independent of England. Below is a *bona fide* account of sales handed us by a friend who shipped part of his cotton direct to Liverpool and thus saved commissions at New Orleans:

Account of Sales of 126 *bales of Cotton received per K. Hunter from New Orleans on account of W. R. C.*

1850.

Feb. 2.—By D. B. Sons & Co., payment 3 mos. 10 days.

126 wg. 494,2,10
1,0,14d

493,2,5
17,2,14

Net, 53,303 lbs..... 475,3,17—at 6⅞ £1526,18,0

Charges.

To marine ins. and stamp 29,9,5, dock and town dues 3,8,3	£32,17,3
" freight on 53,850 lbs. at ⅜ 34,2,11, primage 4,4,2	88,07,1
" cart. and port. 5,5,0 canvas, and mending 3,16,0	9,01,0
" fire ins. 4,3,9, storage 2,14,6.....	6,18,3
" int. 15s., banker's com. 4,16,4, postage 2s.....	4,11,4
" commissions, delcredere and brokerage 3 per cent	45,16,1
	187,11,7
Net proceeds cash, May 15, 1850.....	£1338,0,5

E. E. Liverpool, Feb. 22, 1850.

W. J. & Co.,

Net proceeds were $5,952 55, which, with exchange, was, say, 13½ cents per lb.

The foregoing shipment was made on very favorable terms. A "living" freight is full 1 cent per pound.

The ordinary course of shipment is more expensive and attended with more delays. When cotton averages 10 cents per pound at New Orleans, the following items make up the cost of transporting from the pl antation to the English mill:

Freight to New Orleans, bale of 430 lbs., worth $43...	$1 00
1 month interest and $\frac{1}{4}$ insurance.....	21
Drayage 10 cents, $1\frac{1}{2}$ lbs. loss by sampling 15.....	25
$2\frac{1}{2}$ per cent. commissions.....	1 12
Factorage and charges at New Orleans or what the English term "charges on shipment" 4 per cent.....	1 72
Freight and primage to Liverpool 1 cent.....	4 30
Marine insurance and stamp $2\frac{1}{2}$ per cent.....	1 12
Dock and town dues $\frac{1}{4}$ per cent.....	11
Cartage, porterage, storage, fire insurance, banker's commission, &c., $\frac{3}{4}$ per cent.....	32
Commission and delcredere 3 per cent.....	1 29
Loss by waste and sampling 4 per cent.....	1 72
Speculator's profit and interest 5 per cent.....	2 15
Inland carriage and charges $2\frac{1}{2}$ per cent.....	1 12
Interest from New Orleans to Liverpool say 1 per cent..	43
	$17 25

40 per cent. or 4 cents per lb.

The English charges are, as will be observed, under estimated by nearly one-third. These are actually made on the first cost and the preceding charges. For convenience, we have put the per centages on the first cost or 10 cents per pound. While some of these charges are occasionally saved, there are, and perhaps as often, additional expenses or losses. The result corresponds with the estimate made by Montgomery some years since.

The cost of carriage, including interest and insurance from the plantation to a mill at or below the falls of the Ohio, is about $\frac{1}{3}$ cent per pound. The yarn and cloth, when manufactured here, are now, or soon will be, as near the yarn and cloth consumers as is Manchester, England. The unnecessary waste of capital and labor is, then, $3\frac{2}{3}$ cents. per pound, or something like thirteen millions of dollars a year on the cotton exported from New Orleans. If we add the further cost of bringing the English goods made out of this cotton and consumed by us, the figures would be more startling.

The million of bales now exported from New Orleans should all be made up in the valley into yarns and coarse cloth. Instead of exporting our raw cotton to the yearly amount of 43 millions of dollars, we should export yarn and cloth to the yearly amount of 150 millions of dollars.

At our home price of labor, the whole cost of converting the cotton into yarn is less than $3\frac{5}{8}$ cents per pound, and the cost of making the cotton into brown sheetings has been reduced, in New England, as low as $3\frac{3}{8}$ cents per pound, exclusive of insurance and interest.

The low cost of English labor (if it is low) has nothing to do

with our capacity. *The extra cost of transportation exceeds the home cost of conversion.*

The common sense of our people now regards this as certain—that the coarse fabrics, of which our great staple is the chief element, must soon be made where all the elements can be gathered together at the least cost; and that capital and labor will be attracted to the points where they can be most economically, efficiently, and profitably employed in combining these elements. English money is now sent to New Orleans to buy cotton. Four times as much would be sent if the New Orleans merchants had yarn and cloth instead of cotton.

Some have supposed that the establishment of cotton mills at the South and West would destroy the cotton manufactures of New England. By no means. The result would be the establishment of New England mills on a basis firmer than ever. The New England mills, in coarse goods, are competing with each other, and not with England. Were the duties on coarse goods repealed entire, not a bale would be imported. The New England manufacturer wants an adequate protection on finer goods—and this he can never get (in our opinion) until the West and South see the benefit of home manufactures; not the benefits in New England, but at their own doors. Had the New England manufacturers five years ago erected a dozen first class cotton mills at commanding points in this valley, and filled them with the best machinery and the most efficient operatives, we should now have a tariff more favorable to them than that of 1842. Our people would see the direct as well as indirect advantages of a home market and a diversification of pursuits.

Just as soon as our voters understand that Kentucky and Indiana can compete with England as well as can Massachusetts and Rhode Island, they will sympathise with the New England manufacturers. They will join in giving adequate protection to every manufacturer, whose fabric can, in due time, be produced at home as cheap as it can be obtained from abroad. The parts of the play would then be re-cast—New England would run her machinery and use her mill on fine and fancy goods, and the South and West would produce yarns, coarse cottons, and probably prints for home consumption and export. If we can quadruple the value of our exports by sending abroad goods instead of staple we can afford to pay large wages and profits to the skillful operatives and experienced factors of the East.

VALUE OF THE DOMESTIC EXPORTS OF THE UNITED STATES TO EACH FOREIGN COUNTRY, AND TO DOMINIONS OF EACH FOREIGN POWER, DISTINGUISHING THE AMOUNT SHIPPED IN AMERICAN AND FOREIGN VESSELS, FOR THE YEAR ENDING JUNE 30, 1850.

Whither exported.	In American vessels.	In foreign vessels.	To each country.	To the dominions of each power.
Russia	$233.124	$433.311	$666.435	$666.435
Prussia	.....	70.645	70.645	70.645
Sweden and Norway	126.757	541.823	668.580	766.756
Swedish West Indies	93.463	4.713	98.176	
Denmark	16.070	149.804	165.874	1.033.014
Danish West Indies	820.913	46.227	867.140	
Hanse Towns	719.519	3.601.261	4.320.780	4.320.780
Holland	1.164.686	1.023.415	2.188.101	2.829.983
Dutch East Indies	172.355	8.178	180.533	
Dutch West Indies	344.211	20.124	364.335	
Dutch Guiana	97.014	.....	97.014	
Belgium	1.925.989	242.368	2.168.357	2.168.357
England	38.475.535	26.211.424	64.686.959	81.687.051
Scotland	1.432.146	1.589.594	3.021.740	
Ireland	386.680	638.351	1.025.031	
Gibraltar	167.776	18.531	186.307	
Malta	75.329	.....	75.329	
British East Indies	502.613	.....	502.613	
Cape of Good Hope	143.219	.....	143.219	
Honduras	171.729	255	171.984	
British Guiana	406.531	96.245	502.776	
British West Indies	2.611.440	1.001.362	3.612.802	
Canada	2.944.608	1.696.843	4.641.451	
British American Colonies	386.792	2.730.048	3.116.840	
France on the Atlantic	15.769.622	1.165.169	16.934.791	18.278.151
France on the Mediterran'	771.374	244.112	1.015.486	
French West Indies	211.007	58.370	269.377	
Miquelon and Fr. fisheries	1.563	950	2.517	
French Guiana	43.405	.....	43.405	
Bourbon	.....	12.575	12.575	
Spain on the Atlantic	353.727	251.932	605.659	9.215.680
Spain on the Mediterranean	131.645	3.124.717	3.256.362	
Teneriffe & other Canaries	11.634	8.890	20.524	
Manilla and Philippine Isl.	16.817	.....	16.817	
Cuba	4.441.290	88.966	4.530.256	
Other Spanish West Indies	747.755	68.307	816.062	
Portugal	112.970	60.008	172.978	371.316
Madeira	117.746	19.128	136.874	
Fayal and other Azores	11.318	3.103	14.421	
Cape de Verd Islands	38.186	8.857	47.043	
Italy generally	1.074.804	492.362	1.567.166	1.567.166
Sicilly	25.047	25.530	50.577	50.577
Sardinia	403	170.361	170.764	170.764
Tuscany	41.477	4.187	45.664	45.664
Trieste & oth. Austr. ports	695.071	484.822	1.179.893	1.179.893
Turkey, Levant, &c.	204.397	.....	204.397	204.397
Hayti	1.108.613	102.394	1.211.007	1.211.007
Mexico	1.423.512	75.279	1.498.791	1.498.791
Central Republic of Amer.	55.544	1.681	57.225	57.225
New Granada	887.996	82.623	970.619	970.619
Venezuela	596.639	81.823	678.462	678.462
Brazil	2.634.790	88.977	2.723.767	2.728.767
Cisplatine Republic	39.746	20.278	60.024	60.024
Argentine Republic	474.307	244.024	718.331	718.331
Chili	1.272.210	24.923	1.297.133	1.297.133
Peru	147.540	111.399	258.939	258.939
Equador	24.414	.....	24.414	24.414
China	1.485.961	.....	1.485.961	1.485.961
West Indies generally	63.993	3.941	67.934	67.934
South America generally	22.256	.....	22.256	22.256

TOTAL VALUE OF DOMESTIC EXPORTS OF THE UNITED STATES—CONTINUED.

Whither exported.	In American vessels.	In foreign vessels.	To each country.	To dominions of each power.
Asia generally	315.463	.....	315.463	315.463
Africa generally	654.976	.....	730.932	730.932
South Seas & Pacific Ocean	169.025	75.956	169.025	169.025
Total	$89.616.742	$47.330.170	$136.946.912	$136.946.912

FOREIGN MERCHANDISE EXPORTED FROM THE UNITED STATES.

VALUE OF FOREIGN MERCHANDISE EXPORTED FROM THE UNITED STATES TO EACH FOREIGN COUNTRY, DURING THE YEAR ENDING JUNE 30TH, 1850.

Whither exported.	Free of duty.	Paying dut.ad val	Total.	In American ves'ls.	In foreign vessels.
Russia	$16,981	$181,5 5	$198,506	$152,739	$45,767
Prussia	.....	27,991	27,991	.....	27,991
Sweden and Norway	2,758	48,852	51,610	.....	51,610
Swedish West Indies	465	701	1,166	835	331
Denmark	9,627	11,079	20,706	16,103	4,603
Danish West Indies	81,638	33,180	114,818	110,849	3,969
Hanse Towns	353,767	531,975	885,742	204,287	681,455
Holland	61,149	355,415	416,564	157,786	258,778
Dutch East Indies	219,400	43,552	262,952	262,952	.....
Dutch West Indies	42,721	13,959	56,683	55,883	800
Dutch Guiana	.....	5,825	5,425	5,425	.....
Belgium	209.084	166,319	375,403	288,023	87.380
England	2,394,940	1,815.331	4,210.271	2,618,571	1,591.700
Scotland	.....	183,679	183,697	71.496	112.183
Ireland	.....	42,693	42.693	1,728	40,965
Gibraltar	42,085	18,397	60,482	60.271	211
Malta	19,475	19,576	39,051	39.051	.....
British East Indies	35,000	121,846	156,846	143,846	13,000
British West Indies	100,376	78,268	178.644	31,237	147,407
British Honduras	2,241	14,310	16,551	16,551	.....
British Guiana	20,000	2,663	22,663	22,568	95
Canada	606,508	682,862	1,289.370	700.936	588,434
British American Colonies	34,666	466,708	501,374	24,501	476,873
France on the Atlantic	1,365,986	358,929	1,724,915	1,439,973	284,942
France on the Mediterranean	43,418	114,739	158,155	130,755	27,400
Bourbon	.....	2,200	2,200	.....	2,200
French West Indies	5,194	13,097	18,291	7,789	10,502
French Guiana	.....	1,382	1.382	1,382	.....
Spain on the Atlantic	27,613	945	28,558	27,613	945
Spain on the Mediterranean	85,792	11,063	96,855	85,792	11,063
Teneriffe and other Canaries	5,065	.....	5,065	4,954	111
Manilla and Philippine Isles	1,450	.....	1,450	1,450	.....
Cuba	181,799	278,242	460,041	453.446	6,595
Other Spanish West Indies	66,164	27.427	93,591	90,663	2,928
Portugal	.....	5,236	5.236	479	4,757
Madeira	.....	6,527	6,527	5,957	570
Fayal and other Azores	.....	2,152	2,152	2,152	.....
Cape de Verd Islands	.....	2,167	2,167	2 167	.....
Italy	184,250	55,654	239,904	214,521	25,383
Sicily	6,291	6,733	13,024	4,408	8,616
Sardinia	41,600	44,536	86.136	18,790	67,346
Tuscany	20,938	2,530	23,468	23,358	110
Trieste, &c	149,832	162,279	312,111	104,776	207,335
Turkey, Levant, &c	35,013	18,331	53,344	53,344	.....
Hayti	17,195	121,986	139,181	131,181	8,000
Mexico	5,921	508,115	514,036	491,728	22,308
Central Republic, South America	142	12,825	12,967	12.967	.....
New Grenada	73,569	212,031	285,600	245,068	40,532
Venezuela	317,739	22,269	340,008	332,195	7,813
Brazil	323,422	149,925	473,347	462.086	11,261
Cisplatine Republic	697	821	1,518	1,223	295
Argentine Republic	261,150	85,161	346,311	299,962	46,349
Equador	.....	10,511	10,511	10,511	.....
Chili	13.982	111,686	125,588	112,132	23,456
Peru	769	16,020	16,789	7,970	8,819
China	31.080	88,176	119,256	119,256	.....
South America generally	46,400	4,042	50.442	50,442	.....
Asia generally	5,200	8,121	13,321	13,321	.....
Africa generally	1,997	26.337	28,334	28,013	321
South Seas and Pacific	2,975	17,862	20,837	20,837	.....
Total	$7,575,447	$7,376,361	$14,951,808	$9,998,299	$4,953,509

VALUE OF FOREIGN MERCHANDISE EXPORTED FROM THE U. S.—CONTINUED.

	Free of duty.	Paying dut.ad val	Total.	In American ves'ls.	In foreign vessels.
Entitled to drawback	.....	1,079,118	1,079,118	588,270	490,848
Not entitled to drawback	7,575,447	1,035,952	8,611,399	6,278,720	2,332,679
From warehouse	.....	5,261,291	5,261,291	3,131,309	2,129,982

IMPORTS INTO THE UNITED STATES FROM FOREIGN COUNTRIES.

STATEMENT OF MERCHANDISE IMPORTED INTO THE UNITED STATES FROM FOREIGN COUNTRIES DURING THE YEAR ENDING JUNE 30TH, 1850.

Whence imported.	Free of duty.	Paying duties.	Total.	In American vessels.	In foreign vessels.
Russia	$57,018	$1,454,554	$1,511,572	$1,367,475	$144,097
Prussia	520	26,949	27,469	18,838	8,631
Sweden and Norway	163	1,031,954	1,032,117	241,269	790,848
Swedish West Indies	500	1,693	2,193	1,694	499
Danish West Indies	59,603	207,856	267,459	225,977	41,482
Denmark	.....	527	527	.....	527
Hanse Towns	31,661	8,756,213	8,787,874	5,350,408	3,437,466
Holland	156,210	1,530,727	1,686,967	1,173,428	513,539
Dutch East Indies	202,779	241,625	444,404	444,404	.....
Dutch West Indies	44,737	485,409	530,146	507,130	23,016
Dutch Guiana	3,935	67,108	71,043	71,043	.....
Belgium	10,212	2,394,742	2,404,954	2,192,462	212,492
England	1,886,307	70,232,664	72,118,971	54,018,296	18,100,675
Scotland	2,602	2,744,068	2,746,670	1,430,044	1,316,626
Ireland	2,414	291,239	293,783	100,276	193,507
Gibraltar	.....	44,269	44,269	20,969	23,300
Malta	.....	11,354	11,354	6,990	4,364
British East Indies	80,738	2,784,278	2,865,016	2,865,016	.....
Cape of Good Hope	100	72,106	72,206	72,206	.....
British Honduras	47,402	131,287	178,690	178,690	.....
British Guiana	2,403	12,188	14,591	13,637	954
British West Indies	455,434	671,531	1,126,968	638,552	488,416
British American Colonies	151,145	1,207,847	1,358,992	221,575	1,137,417
Other British Colonies	.....	497	497	497	.....
Canada	636,154	3,649,016	4,285,170	2,027,569	2,257,901
France on the Atlantic	140,114	25,695,056	25,835,170	23,856,143	1,979,027
France on the Mediterranean	3,534	1,699,321	1,702,855	865,595	837,260
French Guiana	.....	12,551	12,551	12,551	.....
French West Indies	60,003	15,681	75,684	42,835	32,849
Bourbon	.....	10,005	10,005	.....	10,905
Spain on the Atlantic	1,000	379,481	380,481	204,485	175,996
Spain on the Mediterranean	407,620	1,294,594	1702,214	885,058	817,156
Teneriffe and other Canaries	.....	85,223	85,223	53,378	31,845
Manilla, Philippine Isles	26,784	1,310,082	1,336,866	1,317,472	12,394
Cuba	719,730	9,572,668	10,292,398	9,996,790	295,608
Other Spanish West Indies	271,637	1,796,229	2,067,866	1,953,717	114,149
Portugal	.....	339,763	339,763	88,895	250,868
Madeira	.....	114,729	114,729	113,273	1,456
Fayal and other Azores	150	16,178	16,328	6,991	9,337
Italy	25,483	2,079,994	2,105,077	1,332,552	772,525
Sicily	23,187	799,442	822,629	519,943	302,686
Sardinia	46	159	205	.....	205
Trieste, &c.	2,600	465,001	467,601	342,536	125,065
Turkey	15	801,008	801,023	720,533	80,490
Hayti	1,155,028	389,743	1,544,771	1,388,603	155,168
Mexico	1,600,882	534,484	2,135,366	1,357,113	778,253
Central Republic, S. A.	74,109	187,350	261,459	254,542	6,917
New Grenada	449,833	142,159	591,992	548,255	43,737
Venezuela	1,342,917	577,330	1,920,247	1,641,033	279,214
Brazil	7,436,386	1,888,043	9,324,429	8,248,143	1,076,286
Argentine Republic	16,529	2,637,348	2,553,877	1,440,131	1,213,746
Chili	278,505	1,518,372	1,796,877	1,796,877	.....
Peru	9,098	161,655	170,753	170,458	295
Equador	.....	4,618	4,618	1,400	3,218
South America generally	83,400	3,259	86,659	5,241	81,418
China	4,586,489	2,006,973	6,593,462	6,318,520	274,942
Asia generally	25,442	377,157	402,599	402,599	.....
Africa generally	81,480	443,242	524,922	509,319	15,103
Atlantic Ocean, &c.	.....	26	26	26	.....
West Indies generally	.....	9,417	9,417	9,417	.....
Sandwich Islands	55,883	8,591	64,474	64,474	.....
Total	$22,710,382	$155,427,936	$178,138,318	$139,657,043	$38,481,275

COMMERCE OF THE UNITED STATES WITH FOREIGN COUNTRIES.

STATISTICAL VIEW OF THE COMMERCE OF THE UNITED STATES, EXHIBITING THE VALUE OF EXPORTS TO, AND IMPORTS FROM, EACH FOREIGN COUNTRY, DURING THE YEAR ENDING JUNE 30TH, 1850.

Countries.	Value of exports. Domestic produce.	Foreign produce	Total.	Value of imports.
Russia	$666.435	$198.506	$864.941	$1.511.572
Prussia	70.645	27.991	98.636	27.469
Sweden and Norway	668.580	51.619	720.190	1.032.117
Swedish West Indies	98,176	1.166	99.342	2.193
Denmark	165.874	20.706	186.580	527
Danish West Indies	867.140	114.818	981.958	267.459
Hanse Towns	4.320.780	885.742	5.206.522	8.787.874
Hannover	.....	.....	.....	.....
Holland	2.188.101	416.564	2.604.665	1.686.967
Dutch East Indies	180.533	262 952	443.485	444.404
Dutch West Indies	364.335	56.683	421.018	530.146
Dutch Guiana	97.014	5.425	102.439	71.043
Belgium	2.168.357	375.403	2.543.760	2.404 954
England	64.686.959	4.210.271	68.897.230	72.118.971
Scotland	3.021.740	183.679	3.205.419	2.746.670
Ireland	1.025.031	42.693	1.097.724	293.783
Gibraltar	186.307	60.482	246.789	44.269
Malta	75.329	39.051	114.380	11.354
British East Indies	502.613	156.846	659.459	2.865.016
Cape of Good Hope	143.219	.....	143.219	72.206
Mauritius	.....	.....	.....	.....
Honduras	171.984	16.551	188.535	178.690
British Guiana	502.776	22.663	525.439	14.591
British West Indies	3.612.802	178.644	3.791.446	1.126.968
Canada	4.651.451	1.289.370	5.930.821	4.285.470
Newfoundland	.....	.....	.....	.....
Faulkland Islands	.....	.....	.....	.....
British American Colonies	3.116.840	501.374	3.618.214	1.358.992
Other British possessions	.....	.....	.....	497
France on the Atlantic	16.934.791	1.724.915	18.659.706	25.835.170
France on the Mediterran.	1.015.486	158.155	1.173.641	1.702.855
French West Indies	269.377	18.291	287.668	75.680
Miquelon & French fisheries	2.517	.....	2.517	.....
French Guiana	53.405	1.382	44.787	12.551
Bourbon	12.575	2.200	14.775	10.005
French possessions in Africa	.....	.....	.....	.....
Spain on the Atlantic	605.659	28.558	634.217	380.181
Spain on the Mediterranean	3.256.362	96.855	3.353.217	1.702.214
Teneriffe and other Canaries	20.524	5.065	25.589	85.223
Manilla and Philippine Isl.	16.817	1.450	18.267	1.336.866
Cuba	4.530.256	460.041	4.990.297	10.292.398
Other Spanish West Indies	816.062	93.591	909.653	2.067.866
Portugal	172.978	5.236	178.214	339.763
Madeira	136.874	6.527	143.401	114.729
Fayal and other Azores	14.421	2.152	16.573	16.328
Cape de Verds	47.043	2.167	49.210	.....
Italy	1.567.166	239.904	1.807.070	2.105.077
Sicily	50.577	13.024	63.601	822.629
Sardinia	170.764	86.136	256.900	205
Tuscany	45.664	23.468	69.132	.....
Ionian Islands	.....	.....	.....	.....
Trieste & other Austr. ports	1.179.893	312.111	1.492.004	467.601
Turkey	204.397	53.344	257.741	801.023
Hayti	1.211.007	139.181	1.350.188	1.544.771
Mexico	1.498.791	514.036	2.012.827	2.135.366
Central America	57.225	12.967	70.192	261.459
New Grenada	970.619	285.600	1.256.219	591.992
Venezuela	678.462	340.008	1.018.470	1.920.247
Bolivia	.....	.....	.....	.....

STATISTICAL VIEW OF THE COMMERCE OF THE UNITED STATES.—CONTINUED.

Countries.	Domestic produce.	Value of exports Foreign produce	Total.	Value of imports.
Brazil	$2.723.767	$473.347	$3.197.114	$9.324.429
Argentine Republic	718.331	346.311	1.064.642	2.563.877
Cisplatine Republic	60.024	1.518	61.542	.....
Chili	1.297.133	125.588	1.422.721	1.796.877
Peru	258.939	16.789	275.728	170.753
China	1.485.961	119.256	1.605.217	6.593.462
Liberia	.....	.....	.....	.....
West Indies generally	67.934	.....	67.934	9.417
South America	22.256	50.442	72.698	86.659
Europe generally	.....	.....	.....	.....
Asia generally	315.463	13.321	328.784	402.599
Africa generally	730.932	28.334	759.266	524.722
South Sea Islands	169.025	20.837	189.862	.....
Equador	24.414	10.511	34.925	4.618
Pacific Ocean	.....	.....	.....	.....
Atlantic Ocean	.....	.....	.....	26
Indian Ocean	.....	.....	.....	.....
Sandwich Islands	.....	.....	.....	64.474
Australia	.....	.....	.....	.....
Patagonia	.....	.....	.....	.....
Uncertain places	.....	.....	.....	.....
North west coast	.....	.....	.....	.....
Total	$136.946.912	$14.951.808	$151.898.720	$178.138.318

(*Merchants' Magazine.*)

RIVER AND HARBOR APPROPRIATIONS.

Statement showing the appropriations made by Congress for the improvement of Rivers and Harbors from the year 1827 to 1844 inclusive, copied from the Evansville Journal:

Years.	*Amount expended.*
1827	$82,559 70
1828	121,094 35
1829	505,676 43
1830	298,655 94
1831	667,846 19
1832	533,249 00
1833	694,638 67
1834	612,536 16
1835	591,242 88
1836	873,962 46
1837	1,383,214 77
1838	1,063,890 03
1839	787,218 48
1840	150,824 76
1841	60,860 16
1842	71,572 52
1843	
1844	655,000 00

POSTAGE LAW OF THE UNITED STATES.*

An act to reduce and modify the rates of postage in the United States and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the thirtieth day of June, eighteen hundred and fifty-one, in lieu of the rates of postage now established by law, there shall be charged the following rates, to wit: For every single letter in manuscript, or paper of any kind, upon which any information shall be asked for or communicated, in writing, or by marks or signs, conveyed in the mail, for any distance between places within the United States not exceeding three thousand miles when the postage upon such letter shall be prepaid, three cents, and five cents when the postage shall not have been prepaid; and for any distance exceeding three thousand miles, double those rates. For every such single letter or paper, when conveyed wholly or in part by sea, and to or from a foreign country, for any distance over twenty-five hundred miles, twenty cents; and for any distance under twenty-five hundred miles, ten cents, excepting, however, all cases where such postages have been or shall be adjusted at different rates by postal treaty or convention already concluded or hereafter to be made;) and for a double letter there shall be charged double the rates above specified; and for a treble letter treble those rates; and for a quadruple letter quadruple these rates; and every letter or parcel not exceeding half an ounce in weight shall be deemed a single letter, and every additional weight of half an ounce or additional weight of less than half an ounce, shall be charged with an additional single postage. And all drop letters, or letters placed in any post office, not for transportation but for delivery only, shall be charged with postage at the rate of one cent each; and all letters which shall be hereafter advertised as remaining over or uncalled for in any post office shall be charged with one cent in addition to the regular postage, both to be accounted for as other postages now are.

Sec. 2. And be it further enacted, That all newspapers not exceeding three ounces in weight, sent from the office of publication to actual subscribers, shall be charged with postage as follows, to wit: All newspapers published weekly only shall circulate in the mail free of postage within the county where published, and that the postage on the regular numbers of a newspaper published weekly, for any distance not exceeding fifty miles out of the county

* We trust that no apology will be necessary, on our part for publishing the entire act of Congress regulating postage. It is a law, to which every citizen may have occasion to refer and we could not abridge it without leaving out something that would be useful.

where published, shall be five cents per quarter; for any distance exceeding fifty miles, and not exceeding three hundred miles, ten cents per quarter; for any distance exceeding three hundred miles and not exceeding one thousand miles, fifteen cents per quarter; for any distance exceeding one thousand miles and not exceeding two thousand miles, twenty cents per quarter; for any distance exceeding two thousand miles and not exceeding four thousand miles, twenty-five cents per quarter; and for any distance exceeding four thousand miles, thirty cents per quarter; and all newspapers published monthly and sent to actual subscribers shall be charged with one fourth the foregoing rates; and all such newspapers published semi-monthly shall be charged with one-half the foregoing rates; and papers published semi-weekly shall be charged double those rates; try-weekly, treble those rates; and oftener than try-weekly, five times those rates; And there shall be charged upon every other newspaper, and each circular not sealed, handbill, engraving, pamphlet, periodical, magazine, book and every other description of printed matter which shall be unconnected with any manuscript or written matter, and which it may be lawful to transmit through the mail, of no greater weight than one ounce, for any distance not exceeding five hundred miles, one cent; and for each additional ounce or fraction of an ounce, one cent; for any distance exceeding five hundred miles and not exceeding one thousand five hundred miles, double those rates; for any distance exceeding one thousand five hundred miles, and not exceeding two thousand five hundred miles, treble those rates; for any distance exceeding two thousand five hundred miles and not exceeding three thousand five hundred miles, four times those rates; for any distance exceeding three thousand five hundred miles, five times those rates. Subscribers to all periodicals shall be required to pay one quarter's postage in advance; in all such cases the postage shall be only one-half the foregoing rates. Bound books and parcels of printed matter not weighing over thirty-two ounces shall be deemed mailable matter under the provisions of this section. And the postage on all printed matter other than newspapers and periodicals published at intervals not exceeding three months, and sent from the office of publication to absolute and bona fide subscribers, to be pre-paid; and in ascertaining the weight of newspapers for the purpose of determining the amount of postage chargeable thereon, they shall be weighed when in a dry state. And whenever any printed matter on which the postage is required by this section to be prepaid shall, through the inattention of postmasters or otherwise, be sent without pre-payment, the same shall be charged with double the amount of postage which would have been chargeable thereon if the postage had been pre-paid; but nothing in this act contained shall subject to postage any matter which is exempted from the payment of postage by any existing law. And the Postmaster General, by and with the advice and consent of the Presi-

dent of the United States, shall be, and hereby is authorised to reduce or enlarge, from time to time those rates of postage upon all letters and other chargeable matter conveyed between the United States and any foreign country, for the purpose of making better postal arrangements with other Governments, or counteracting any adverse measures affecting our postal intercourse with foreign countries; and postmasters at the office of delivery are hereby authorised, and it shall be their duty to remove the wrappers and envelops from all printed matter and pamphlets not charged with letter postage, for the purpose of ascertaining whether there is upon or connected with any such printed matter, or in such package, any matter or thing which would authorize or require a charge of a higher rate of postage thereon. And all publishers of pamphlets, periodicals, magazines, and newspapers which shall not exceed sixteen ounces in weight, shall be allowed to interchange their publications, reciprocally, free of postage: Provided, that such interchange shall be confined to a single copy of each publication. And provided, also, said publishers may inclose in their publications the bill for subscription thereon, without any additional charge of postage: And provided further, That in all cases where newspapers shall not contain over three hundred square inches, they may be transmitted through the mails by the publishers to bona fide subscribers at one fourth the rates fixed by this act.

Sec. 3. And be it further enacted, That it shall be the duty of the Postmaster General to provide and furnish to all deputy postmasters, and to all other persons applying and paying therefor, suitable postage stamps, of the denomination of three cents and of such other denominations as he may think expedient to facilitate the pre-payment of the postages provided for in this act; and any person who shall forge or counterfeit any postage stamp provided or furnished under the provisions of this or any former act; whether the same are impressed, or printed on, or attached to, envelops or not, or any die, plate, or engraving therefor, or shall make or print, or knowingly use or sell, or have in his possession with intent to use or sell, any such false, forged, or counterfeited die, plate, engraving or postage stamp, or who shall make, or print, or authorize or procure to be made or printed, any postage stamps of the kind provided and furnished by the Postmaster General as aforesaid, without the special authority of the Post Office Department, or who after such postage stamps shall have been printed, shall, with intent to defraud the revenues of the Post Office Department, deliver any postage stamps to any person or persons other than such as shall be authorized to receive the same by an instrument of writing, duly executed under the hand of the Postmaster General and the seal of the Post Office Department, shall, on conviction thereof, be deemed guilty of felony, and be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding five years, or by both such fine and imprisonment; and the expenses of procuring and providing all such

postage stamps and letter envelops, as are provided for or authorized by this act, shall be paid, after being adjusted by the Auditor of the Post Office Department, on the certificate of the Postmaster General, out of any money in the Treasury arising from the revenues of the Post Office Department.

Sec. 4. And be it further enacted, That it shall be the duty of every postmaster to cause to be defaced, in such manner as the Postmaster General shall direct, all postage stamps, attached to letters deposited in his office, or delivered, or to be sent by mail; and if any postmaster sending letters in the mail with postage stamps attached shall omit to deface the same, it shall be the duty of the postmaster to whose office such letters shall be sent for delivery, to deface the stamps, and report the delinquent postmaster to the Postmaster General. And if any person shall use, or attempt to use, in prepayment of postage, any postage stamp which shall have been before used for like purposes, such person shall be subject to a penalty of fifty dollars for every such offence, to be recovered in the name of the United States, in any Court of competent jurisdiction.

Sec. 5. And be it further enacted, That lists of letters remaining uncalled for in any post office, in any city, town or village where a newspaper shall be printed, shall hereafter be published once only in the newspaper which, being issued weekly or oftener, shall have the largest circulation within the range of delivery of said office, to be decided by the postmaster at such office, at such times and under such regulations as the Postmaster General shall prescribe, and at a charge of one cent for each letter advertised. And the postmaster at such office is hereby directed to post, in a conspicuous place in his office, a copy of such list, on the day or day after the publication thereof, and if the publisher of any such paper shall refuse to publish the list of letters as provided in this section, the postmaster may designate some other paper for such purpose. Such list of letters shall be published once in every six weeks, and as much oftener not exceeding once a week, as the Postmaster General may especially direct: Provided, that the Postmaster General may in his discretion, direct the publication of German and other foreign letters in any newspaper printed in German or any other foreign language, which publication shall be either in lieu of, or in addition to the publication of the list of such letters in the manner first in this section provided, as the Postmaster General shall direct.

Sec. 6. And be it further enacted, That to any postmaster whose commissions may be reduced below the amount allowed at his office for the year ending the thirtieth day of June, eighteen hundred and fifty-one, and whose labors may be increased, the Postmaster General shall be authorized, in his discretion, to allow such additional commissions as he may deem just and proper: Provided, That the whole amount of commissions allowed such postmaster

during the fiscal year, shall not exceed by more than twenty per cent. the amount of commission at such office for the year ending the thirtieth day of June, eighteen hundred and fifty-one.

Sec. 7. And be it further enacted, That no post office now in existence shall be discontinued, nor shall the mail service on any mail route in any of the States or Territories be discontinued or diminished, in consequence of any diminution of the revenues that may result from this act. And it shall be the duty of the Postmaster General to establish new post offices, and place the mail service on any new mail routes established, or that may hereafter be established, in the same manner as though this act had not passed.

Sec. 8. And be it further enacted, That there shall be paid to the Post Office Department in further payment and compensation for the mail service performed for the two Houses of Congress and the other Departments and officers of the Government in the transportation of free matter, the sum of five hundred thousand dollars per year, which shall be paid quarterly, out of any moneys in the treasury not otherwise appropriated; and the moneys appropriated to the Post Office Department by the twelfth section of the act "to establish certain post routes, and for other purposes," approved March third, eighteen hundred and forty-seven, and remaining undrawn in the treasury, shall continue subject to the requisition of the Postmaster General for the service of the Post Office Department notwithstanding the same may have remained so undrawn for more than two years after it became subject to such requisition.

Sec. 9. And be it further enacted, That there is hereby appropriated, out of any moneys in the treasury not otherwise appropriated, the sum of five hundred thousand dollars, to supply any deficiency that may arise in the Post Office Department.

Sec. 10. And be it further enacted, That it shall be in the power of the Postmaster General, at all post offices where the Postmasters are appointed by the President of the United States, to establish post routes within the cities, or towns, to provide for conveying letters to the Post Office, by establishing suitable and convenient places of deposite, and by employing carriers to receive and deposite them into the Post Office; and at all such offices it shall be in his power to cause letters to be delivered by suitable carriers appointed by him for that purpose, for which not exceeding one or two cents shall be charged, to be paid by the persons receiving or sending the same, and all sums so received shall be paid into the Post Office Department: Provided, the amount of compensation allowed by the Postmaster General to carriers shall in no case exceed the amount paid into the treasury by each town or city, under the provisions of this section.

Sec. 11. And be it further enacted, That from and after the passage of this act, it shall be lawful to coin at the Mint of the United States and its branches, a piece of the denomination and legal value of three cents, or three-hundreths of a dollar, to be

composed of three-fourths silver and one-fourth copper, and to weigh twelve grains and three-fourths of a grain; that the coin shall bear such devices as shall be conspicuously different from those of the other silver coins, and of the gold dollar, but having the inscription "United States of America," and its denomination and date; and that it shall be a legal tender in payment of debts, for all sums of thirty cents and under. And that no ingots shall be used for the coinage of the three cent pieces herein authorized, of which the quality differs more than five-thousandths from the legal standard; and that in adjusting the weight of the said coin, the following deviations from the standard weight shall not be exceeded, namely, one-half of a grain in the simple piece, and one pennyweight in a thousaud pieces.

Approved, March 3, 1851.

ALTON AND SANGAMON RAILROAD.

It affords us much pleasure, after laboring more than three years in the cause of internal improvement in the West, to receive assurances that several of the great lines of railway that have been, for some years, in contemplation, will be commenced during the present season. Though continually alive to every popular movement relating to works of internal improvement, we have not considered that a notice of all the meetings and resolutions respecting the many projects that have been discussed in the western States, would be profitable to our patrons. The weekly and daily newspapers are the more appropriate organs for disseminating information upon such topics. It is our province to discuss the great principles involved in a thorough system to note the progress of all its parts, and, preserve the facts as matter of history. Keeping these objects in view, we have desired from the commencement of our Journal to make it the repository in which may be found in future times a complete history of all the great works of this vast region: and, to enable us to do justice to this department of our labors, we respectfully solicit the co-operation of all who are engaged in prosecuting not only the construction of railways, canals and plank roads, but of such as are engaged in manufacturing, mining and other pursuits connected with the development of the resources of this broad and fertile valley. The thought has frequently occurred to us that those engaged in public works expect too much from us as journalists: they are pleased to see their labors noticed, but will not give themselves the trouble of furnishing the facts without solicitation; and even in many instances where we have applied to them for

facts, our requests have not been responded to. We trust, however, that our correspondence with those engaged in prosecuting public works, will be placed on a better footing as they progress.

In connection with this subject we beg to tender our thanks to J. I. Shipman, Esq., Chief Engineer of the Alton and Springfield Railroad, for a slip from the State Register, containing an account of the progress of that work. But having previously received the Alton Telegraph containing the same article, preceded by some interesting remarks by the Editor, we copy the article as we find it in the Telegraph, with a few alterations which we find in pencil mark in the margin of the slip.

We have long regarded the Alton and Springfield road as indicating great sagacity on the part of its projectors; and we admire the enterprise and public spirit of those who have been instrumental in pushing it forward with so much energy.

Should this work be continued to Bloomington on the east, and Peoria on the west, it will secure to Alton a commerce that must make it one of the important cities on the Mississippi. And well do the enterprising citizens of that place deserve the fruits of their labor: for they have set a glorious example to the other towns in this region which we trust will incite them to the undertaking of similar enterprises.

"It will, we are sure, be as gratifying to the friends of Internal Improvement in our State at large, as it must be to the stockholders of the Alton and Sangamon Railroad Company, to be informed of the rapid progress of this important work towards its completion. Such information we feel authorized to give, not only as the result of our own observation; but also, by the parties themselves, who are more immediately charged with its superintendence.

But seven months have elapsed since the first excavation was made. During this comparatively short interval, favored by a remarkably propitious winter, the entire line between Alton and Carlinville, thirty-six miles in length, has been graded; viaducts, culverts, and the necessary buildings for the use of the road—which will compare favorably with the best in other parts of the Union—have been, or are nearly constructed; and the ties, rails, &c., purchased and partly delivered on the levee at this place. Of these a portion are laid down on the line, ready for use.

A locomotive engine, purchased by the contractors for their own purposes, is daily expected here; thus preparing the way for those now in progress of construction, and the passenger and freight cars soon to follow. And we think we hazard but little in expressing the opinion, that the track to Carlinville will be in traveling condition in all the month of July, and thence to Springfield in

November next—the Chief Engineer having nearly or quite concluded his survey by the most eligible direct line authorized by the recent act of the Legislature.

We are credibly informed, that the work so far done, as well as the quality, weight, and form of the rail, the ties, engines, passenger and freight cars, are of the most modern and approved character; and that nothing has been omitted by the enterprising contractors, to merit the approbation of the stockholders, and the traveling public, in the fulfillment of their engagements.

It is doubtless generally known to our readers, that tne Alton and Sangamon Railroad Company have obtained amendments to their charter, by acts of the last Legislature, authorizing the extension of their road to Bloomington, in one direction, and in another, to Pekin and Peoria, the importance of which cannot be too highly estimated. We sincerely hope that it will be so considered, not only by the stockholders of the road, but also by our fellow-citizens at those interesting points of connection; and that strenuous exertions will be made by one and all to insure the early consummation of an enterprise, which has such a bearing upon the future welfare of the population to be thus united.

It is understood that an early preliminary survey will be ordered to be made, by the Board of Directors, of both these contemplated branches of our road. In the meantime we rely confidently upon the manifestation of the same public spirit of liberality, on the part of individuals, as well as of the cities, towns, or counties, to be benefitted by the completion of these lines, in the contributions which it wtll call for. which has distinguished the subscribers to the Alton and Sangamon Railroad Company.

We cannot, perhaps, close this article more appropriately, than by inviting the reader's attention to the following, copied from the *State Register* of the 8th inst., which furnishes sundry additional items of interesting information on the subject of the Railroad, and which will repay a careful perusal.

Our town, as well as the State at large, being interested in all that relates to the construction of the Alton and Springfield Railroad, we have taken pains to procure from the most reliable source, accurate statistics respecting the progress of the work to this date.

The grading of twenty-three miles is completed, and on the remaining ten miles, the work is more than one half done. One thousand tons of rails, or track for about eleven and a half miles, have been delivered at Alton, and the residue of the iron for the entire road to Springfield, is delivered at New Orleans. Twenty thousand ties, or sufficient for over nine miles, have been delivered at Alton; and contracts for the whole road have been entered into, and sufficient to extend the road to Carlinville is now ready for transportation.

Two steamboats, the Newton Wagoner and Patrick Henry are

constantly engaged, and other New Orleans steamers are employed in the transportation of iron, ties, and other materials for the road.

All the lumber for the station houses, engine and machine shops has been procured. The foundations for the depot buildings, engine house and machine shop, &c., at Alton, are laid, and the walls up ten or twelve feet. Ten freight cars have been delivered at Alton, and contracts made for all the engines and cars, which are now constructing in the best shops in Massachusetts. The average force on the work, during the winter, has been about seven hundred men.

The masonry—of which a large amount has been done—is still building in the most permanent and durable manner, and in all respects equal to that on the New York and Erie, the Hudson River, the Harlem Extension, and the best constructed railroads in New York and New England. In the crossing of streams, permanent stone arches, varying from fifteen to forty feet span, have been made, instead of wooden structures—except at the crossing of Macoupin creek, where a wooden bridge of one hundred feet span is proposed to be used. The ties are of very large size, and of the best quality of cedar. The iron is of an approved pattern of H rail, weighing 56 pounds to the yard—the same weight as that used on the best Massachusetts roads and only four pounds less than the heaviest pattern used on the New York and Erie railroad.

The contractors have commenced laying track at Alton, and are now carting iron and ties, beyond the heavy work near the city, to the prairie work beyond, which extends, uninterruptedly, for twenty miles, and which is now ready for the rails.

A definite location of fourteen miles north of Carlinville has been made, and the preliminary surveys necessary to decide on the remainder of the line to Springfield, have been completed.

The land surveys to obtain the right of way from Carlinville to this city are being made, and offers of land for a depot and machine shop, &c., have been made by our citizens, and forwarded for the consideration of the board of directors."

We learn that at an election for Directors of the Alton and Sangamon Railrod, held at Alton, 17 April, Messrs. H. A. Coit, J. B. Danforth and J. D. Dakin of New York, and Virgil Hickox, Esq., of Springfield, and Edward Keating, Esq., of Alton, were elected Directors.

TERRE HAUTE AND ALTON RAILROAD COMPANY.

We perceive from the Alton Telegraph that a meeting of the Directors of this company was held at Shelbyville, Ill., on the 10th inst. for the object of discussing the means and adopting measures for prosecuting the work. In his address the president stated that:

"All the incipient steps had been taken towards a full and liberal compliance with the requirements of the general law. The articles of association had been drawn up in the regular and prescribed form. The names and numbers of shares, to an amount exceeding one thousand dollars per mile, had been subscribed and registered. The Company had been organized by the election of a Board of Directors, and appointment of its officers. The ten per cent. had been collected and paid in to the Directors as required. And the articles of Association, with the name of every subscriber and the number of shares annexed, together with the necessary affidavits, had been filed in the State Department. These prerequisites having been carried out as preliminary to an application for a special charter, the action of the Legislature has been even more favorable than could reasonably have been anticipated. A charter has been granted, by an almost unanimous vote, liberal in its provisions, well adjusted to the wants of the Company, and conferring all the powers and privileges that were or could be desired. The charter for the Terre Haute and Saint Louis road has been again vetoed by the voice of the same Legislature, by a vote so decisive, and in a manner so fortunate, as to preclude all hope of its ever being resuscitated, provided that we now make such an efficient commencement of the work upon our road as will amount to a sure guarantee for its early completion. The Vincennes and Saint Louis interest, have, heretofore, acted in concert with the Terre Haute and Saint Louis interest. But now, having obtained their charter, they will be, henceforth, identified with us, and will be, in all time to come, as antagonistical to the other as we can possibly be. But, as has been already intimated, supineness and inaction on our part, may, and probably will, result in ultimate defeat.

What, then, is to be done, and how are the resources to be provided for the accomplishment of our work? I answer, that it can and will be most surely effected by applying our own shoulders to the wheel, by making a united and vigorous effort at home to put the ball in motion, by calling for individual and county subscriptions to an amount sufficient to make up the sum of five hundred thousand dollars. When this amount is raised at home, it will inspire confidence abroad, and will insure the procurement of foreign aid. But even without foreign aid, it is believed that the judicious application of five hundred thousand dollars would go so far towards grading the entire line, and placing it in readiness for the

superstructure, as to give credit to the Company sufficient to enable them to effect a loan adequate to the completion of the work. In the mean time, let us not intermit our exertions to procure stock to be taken abroad—let us, at once, open negotiations with Eastern capitalists—let us work simultaneously, and work energetically, at home and abroad, and we can, we must, we will, achieve our enterprise."

Upon the conclusion of the foregoing remarks of the President, a resolution was offered by the Hon. Robert Smith, and adopted as follows:

Resolved, That the President be authorized to procure the services of some competent person or persons to visit the several counties along the line of the Terre Haute and Alton Railroad, to co-operate with the Commissioners and stockholders in procuring further subscriptions to the stock in said road, so as to increase the same to $500,000.

Several other resolves, calculated to give effect to the action of the Board, were passed with a like unanimity—and the whole was crowned by the adoption, without a dissenting voice, and with a hearty response thereto, of the following resolution, offered by Gen. Thornton:

Resolved, That we regard the construction of the Terre Haute and Alton Railroad, as not only of vital interest to the prosperity of the rich and beautiful country it is to pass over, but as destined, if completed, still to brighten the already brightening prospects of our beloved State, and to constitute a necessary part of a continuous line of Railroad from the Mississippi to the Atlantic: and as we now have an exclusive charter and ability to build the road, we are determined never to slacken in our energies, nor weary in our efforts, for the consummation of this great project, and that as we *can*, we *will*, prosecute it to final completion.

MASSACHUSETTS RAILROADS.

From the Rail Road Journal.

We have just received a copy of the reports of the Rail Road Companies of Massachusetts for the year 1850, published by order of the Legislature.

We give below a list of the Railway Corporations in that State, the length of lines built, and the cost of construction. The list embraces 1046 9-10 miles of road, built at a cost of $51,885,556, 46. But to these must be added 74¾ miles of branch lines, making the aggregate 1121⅓ miles of finished road, built at an average cost of $43,830,01 per mile. But from this aggregate of Mas-

sachusetts roads there should be deducted 43 miles of the Cheshire road, lying in New Hampshire, 38 miles of the Boston and Maine Road, lying in New Hampshire and Maine, 5 miles of the Nashua and Lowell Road, lying in New Hampshire, and 10 miles of the Vermont and Massachusetts R. R., making 96 miles in all. Deducting these from the 1121⅓ miles we have an aggregate length of Railroads in Massachusetts of 1025 miles:

	Length of line. Miles.	Cost of road and equipment.
Berkshire railroad	21	$600,000 00
Boston, Barre and Gardner		
Boston and Lowell	25.7	1,945,646 68
Boston and Maine	74.6	4,021,606 59
Boston and Providence	41	3,416,232 51
Boston and Worcester	44.6	4,882,648 23
Cape Cod Branch	27.3	626,543 21
Charles River Branch		
Cheshire	53.6	2,738,318 10
Connecticut River	50	1,798,855 38
Dorchester and Milton	3.3	132,171 72
Eastern	38	3,120,391 67
Essex	19.8	537,869 01
Fall River	42.2	1,068,167 01
Fitchburg	50.9	3,552,282 59
Fitchburg and Worcester	13.9	259,073 93
Framingham Branch		
Grand Junction Railroad and Depot Comp.	6	678,116 31
Hartford and New Haven	5.8	171,152 65
Harvard Branch	3.6	26,213 02
Lexington and West Cambridge	6.6	242,160 86
Lowell and Lawrence	12.3	333,254 42
Medway Branch		
Midland		
Nashua and Lowell	14.5	651,214 88
New Bedford and Taunton	20.1	498,851 68
Newburyport	8	106,825 31
New London, Willimantic and Palmer	9	180,000 00
Norfolk County	26	1,060,990 04
Norwich and Worcester	17	772,105 90
Old Colony	37.2	2,293,534 83
Petersborough and Shirly	14	272,646 96
Pittsfield and North Adams	18.6	443,677 68
Providence and Worcester	27	923,288 10
Salem and Lowell	16.8	316,942 82
Saugus Branch		
Southbridge and Blackstone		
South Reading Branch	8.1	231,601 33
South Shore	11.5	420,434 03

Stockbridge and Pittsfield	21.9	448,700 00
Stony Brook	13.1	265,526 73
Stoughton Branch	4	93,433 29
Taunton Branch	11.1	307,136 29
Troy and Greenfield		
Vermont and Massachusetts	69	3,192,021 54
Waltham and Watertown		
Western	117.8	8,032,813 83
West Stockbridge	2.7	51,516 29
Worcester and Nashua	39.6	1,282,691 04
	1046.9	$51,885,556 46

RAILROAD TRAFFIC.

From the Railroad Journal.

The Harlem railroad receipts show a large gain over last year. They are for March:

1851	$42,615 16
1850	32,596 23
Increase, 31 per cent	$10,018 93

The aggregate increase for January, February and March is $27,693 94.

The receipts of the Albany and Schenectady road are considerably in advance of the estimates of the company. The March earnings are:

1851	$16.876 17
1850	12,311 04
Increase equal to 37 per cent	$4,565 13

The March receipts of the Norwich and Worcester road show also a gain over the same month of last year. They are:

1851	$21,631 92
1850	21,431 00
Increase in 1851	$1,531 92

Macon and Western Railroad.—The earnings of the Macon and Western railroad for March were:

1851	$18,590 06
1850	16,952 01
Increase 10 per cent	$1,638 65

The cash receipts for sales of land belonging to the Wabash and Erie canal, for the three months ending 31st March, amounted to.....$61,906 30
The receipts for the same period last year were..... 21,893 32

Increase.....$40,012 98

Housatonic Railroad.—The annual report of the Housatonic railroad has been published, and from it we gather the following facts. The receipts of the year were:

Passengers	$126,988 98
Freight	170,081 19
Mails, &c	12,993 06
Total	$310,063 23
Expenses and repairs	153,235 34
	$156,827 89
Rents to Berkshire, Stockbridge and Pittsfield and West Stockbridge roads	74,811 60
Net earnings of Housatonic road	$82,016 29
Deduct extraordinary expenses and new equipment	30,523 00
Net balance	$51,493 29

This road commenced working the Stockbridge and Pittsfield road in December 1849, and the repairs and expenses of that road have consequently gone into the above expenditures. The comparative receipts of 1848, '49 and '50 are as follows:

1848	$274,314
1849	287,184
1850	310,063

The increase in 1850 is $22,879. This small increase is ascribed to the depressed condition of the iron business on the line of the road. Several manufacturing establishments will be put into operation this year, which will add to the revenues of the road. The gross earnings of January, 1851, were $48,454; February, estimated $36,000; together, $84,454, against $78,176 in the same months of 1850. The net earnings after paying all expenses, ordinary and extraordinary rents and dividend on preferred stock, show a deficiency of $19,354 27, which was more than absorbed by the extraordinary expenses.

EVANSVILLE, INDIANA.

No point on the Ohio river commands a broader scope of country, extending from north to south, nor one more fertile and varied in its products than the Town of Evansville, Ia.; and when we take into view the extent of the Wabash and Erie canal, which is soon to be completed, and other improvements, either now in progress, or in contemplation, we are fully persuaded that few towns or cities in the West promise a more prosperous future.

Evansville is on the line of central cities; and near the centre of that line from east to west: and when her own railways shall have been completed north of the Ohio, and proper connections made with the southern systems of railway improvements, she will—if we except the bank of the Mississippi—combine more facilities for producing and distributing an extensive commerce than any city in this great valley east of the Mississippi river.

Thus far, for the want of communication with the interior of Indiana, Illinois and Kentucky, by railways, or other improved modes of transportation, Evansville has afforded comparatively but little inducement to the merchant or manufacturer; but as the great works which are to connect her with the country, progress towards completion, sagacious men begin to examine her resources, and we venture to prediet that the time is not distant when her progress will be onward witd a giant's stride.

We regret that it is not in our power to give a statistical view of her present population and business, but trust that some one of her enterprising citizens will furnish us with the facts for publication.

We extract the following paragraphs from the Evansville Journal to show the feeling entertained in regard to railways and manufactures not only in that town but in the adjoining country.

Evansville and Illinois Railroad.—There appears to be a growing feeling of encouragement or support for this road, in every quarter it is likely to take its course.—At Vincennes, its connecting point with the Wabash river, there is the right spirit manifested to build the road from Princeton to that city, and we have high hopes that the result will be such action as will in a brief time place this link of the road under contract. It has been proposed to run the road thence to Terre Haute, thence to connect with the Indianapolis railroad—an extension promising many advantages to the road, running as it will through a rich country, and in a direct line from one prominent point on the Wabash to another. That such a connection with the Ohio as this would offer to Terre Haute, should be regarded as highly advantageous to that place, no one will doubt,

and certainly its citizens must fully realize. A meeting on the subject of the extension of this railroad was recently held at Carlisle, as will be seen by the notice of it below. The best spirit, we understand, prevailed at this meeting, and the counties along the line were well represented. It appears our indefatigable fellow-citizen, John Ingle, Esq., was present and addressed the meeting. We extract the following article from the Wabash Express, published at Terre Haute, which alludes to the Carlisle meeting, and highly compliments Evansville:

Wabash Railroad.—A meeting upon the subject of furthering this railroad, was held at Carlisle, in Sullivan county, on the 2d inst. The meeting was numerously attended, by gentlemen who have the means, influence and inclination to stop not short of ultimate success. Not only Sullivan county, but from Vanderburgh to Vigo, were represented, and the best feeling and much enthusiasm prevailed. Addresses were made by several gentlemen present. John Ingle, Jr., of Evansville, a Director and Secretary of the Evansville and Princton Railroad (which will likely be finished this year,) addressed the assemblage at length, and submitted statistics and facts which satisfied every one present of the importance of this road to the country through which it will be located, and to all the towns through which it passes, and will connect. Ending on the Ohio, at Evansville, a fine shipping point at any season of the year, the business of the road would hardly ever be interfered with by the many inconveniences and drawbacks which are common in more northern latitudes, and with this advantage which Evansville has in its location, it might soon become what Cincinnati, Louisville or St. Louis are, to Ohio, Kentucky or Missouri—the several States in which these commercial cities are situated, affording them every conceivable article of consumption, traffic or manufacture at rates far below smaller cities or towns.

Our own town and county have also an abiding interest in this road, as it sends by the river every year, immense quantities of produce, of most all sorts, to the southern and eastern markets, and it often happens that the shipper could obtain better prices, could he get his produce into market before the Wabash offers him an opportunity, by the usual spring freshets. We hope the friends of the Wabash Railroad, will not be abashed at the magnitude of the work before them, and but a few years may be permitted to pass, before Evansville and Terre Haute may *breakfast* together at Vincenner.

Wabash and Erie Canal.—This canal is now completed between Toledo, Ohio, and Point Commerce, Ia., giving a continuous line of canal of 352 miles—260 miles in Indiana, and 48 miles in Ohio. The continuation of the line from Point Commerce to Evansville, on the Ohio river, a distance of 111½ miles is all under contract. An effective force of two thousand men has been employed upon it the past season, and its final completion in the

fall of 1852 placed beyond a doubt. This great work, so soon to be completed, will be 463½ miles in length—the greatest work of the kind ever undertaken by any State of the American Union—the largest continuous artificial channel of communication on the European or American continents.

Manufactures in Evansville.—Gen. James, Judge Huntingdon and Hon. H. Smith, arrived here night before last from Cannelton. The object of their visit, was to consult with our citizens on the subject of the establishment of a factory for the manufacture of cotton and Woolen fabrics in Evansville, and subjects connected therewith.—We are glad to welcome these distinguished gentlemen to our city on such a mission as this—promising so much benefit on its success to our city, and when Evansville is now rife for such an enterprise. We have repeatedly endeavored to direct the attention of capitalists to the advantages possessed by Evansville for manufacturing, which advantages will be greatly increased by the completion of the Wabash and Erie Canal, and Evansville and Illinois Railroad. Commerce alone will never build up Evansville nor any other Western city. We must look to manufactnres even to aid in building up our commerce.

The success of the Cannelton Cotton Factory, erected on the most extensive scale, is already proving that we have in the West every availability for manufacturing coarse fabrics so as to compete with the factories of the East,—and no point in the West more than Evansville possesses these advantages required for the success of such branch of manufactures. We have examined several specimens of fabrics manufactured at Cannelton, and brought here by Hon. H. Smith and feel proud in the thought that they were produced in our own State. These specimens compare favorably with those of Eastern manufacture, and goods of the kind they represent can be sold at such prices as to compete with Eastern goods, and at the same time afford a handsome profit.

For the Western Journal.

VISIT TO A "GALLERY OF ART."

Wandering recently, in a rather listless mood, through the streets of the present "Queen City of the West," (destined soon to divide the palm with her rival upon the banks of the Mississippi,) our attention was attracted by the notice, "Gallery of Western Art." Following the direction, a few steps brought us into the midst of a noble collection of painting and statuary. The first object that riveted our gaze as we entered, was the marble statue of the "Greek Slave;" that rare creation of our own country's genius, Powers.

We shall refrain from any minute portraiture of this beautiful work of art; for models and descriptions have already made it as familiar to most of your readers, as the sacred family likeness, that has descended from a long train of ancestors and is now suspended by their own fireside, lookiug down, with mute, yet touching and ever living interest upon their bright and happy circle. And in mentioning such a fact, we pay the truest and worthiest tribute to the Artist's genius. Powers has left the memory of himself to the American mind, in this beautiful and imperishable form. We are glad that his noble production is thus treasured as a national thing, not only as a just and delicate testimony to the author's high success, but, also, from the immediate influence that is thus exerted, in refining and embellishing our national life, by creations of artistic grace and loveliness.

And in thus making a name the heritage of an entire people, there is a reflex influence, which blends the national sentiment. Binding with united hand the wreath, quickens the pulse of fraternal sympathy. A kindlier feeling is nurtured, when we are reminded of our unity by the oneness of our interest and admiration.

The entire effect of this statue is most beautiful and perfect. The exquisite proportion of the form, the grace and ease of the posture, almost make you forget that it is not a delicate human figure, reclining against the carved pillar that supports the right hand, while the shrinking modesty, which is displayed in the averted countenance, is just ready to quicken your sympathy for the lovely captive in her humiliating exposure. We see, at once, the truth of the conception, and the rare embodiment, that genius alone can give to its own inward creations. The simple and graceful posture of the averted countenance, gives expression, as it were, in a single stroke, to the delicate sensitiveness of female nature. Through this marble statue the Artist impresses upon us a revelation of character, as truthfully, and more strikingly, than could be given by a volume of prose or poetry.

It might seem, at a casual glance, as though this position would, at once, have occurred spontaneously to the mind of every one, as that which most readily expressed the natural modesty of the sex. But the most simple and beautiful sentiments, ever, seem those which the author could not have refrained from writing—and the most life-like portraiture of character, appears to have been the only one that could have been painted; yet the utterance of the one, and the delineation of the other, have ever been the prerogative of the highest and serenest intellects.

As we gazed upon the statue of the "Greek Slave," there was to us something more than the pure marble chiseled with exquisite skill, more than the beauty and perfection of form, or even than the rare embodiment of the artist's thought. There was an intensity of interest to us, in the reflection, that our eye rested upon a fragment of the freshly quarried rock, into which the artist had

infused his own soul, carving, as it were, the eternal child of his own fair ideal. Our thought followed him, as he toiled on, with fearfulness, and again, with rapture, while the beautiful form grew, slowly revealing the lovely symetry of that image, which was ever the companion of his waking hours, and the vision of his dreams. And we thought too, of the high exultation and self-rewarding joy, that must have thrilled the Artist's soul, when the last stroke was given, and the statue stood before him, a part of his own life, the embodied history of many hours of loneliness and anguish, as well as of thrilling passion and daring hope. The very marble, itself, seemed consecrated by the touch of the genius, that had there poured out the intensity and earnestness of a life.

Leaving the statue of the Slave, our eye fell upon many rare and beautiful works of Art, of which the West might well be proud. But the painting that interested us by far the most deeply, was one, which portrayed with startling reality the two last survivors of the deluge. We do not remember the exact title of the piece, but the painting itself revealed at a glance its full meaning.

In the foreground there rose a rock, still projecting a short distance above an endless waste of waters. Upon this rock were two gigantic human forms, male and female. In the far perspective was seen the Ark, thrown back with indistinctness against a black and lightning-lit sky, which closed down, like a dark curtain, unbrokenly, upon a desolate ocean. The prominent figures upon the canvas, were, of course, the gigantic antediluvians, upon the last uncovered mountain peak of the world. The man was seated upon the highest portion of the rock, while just at his feet, amid a few broken fragments, lay the beautiful and noble female, lifeless, with her long, dark hair floating out upon the waves, which were fast rising above her prostrate form. The noblest conception of the piece, was this last survivor, awaiting his fate in loneliness upon this rapidly disappearing crag. We know not when a work of art has so intensely interested us. At the time it was even more absorbing than the statue of the "Greek Slave." Apparently the model of physical perfection, his whole attitude was that of defiance and hate. The deep agony of his soul brought into the strongest tension every vein and muscle of his athletic frame. With clenched hands, and features that admirably expressed the daring of destiny to do its worst, he gazed off upon the far reach of the gloomy waters. There was no relenting, no repentance, no asking for pity, or prayer for mercy, but a stern resolve, to bear fearlessly and alone, the terrors that surrounded and awaited him.

The spirit which was here so grandly shadowed forth, seemed to us like a re-writing of that noble old Greek tragedy of "Prometheus Bound." The proud and unconquerable soul, which the ancient tragedian gives his hero, hurling back an impotent scorn and defiance to the author of his misery, had here, in the last survivor of the deluge, its fullest expression. It was a truly sublime

conception, that placed this solitary, living form, upon the last mountain summit of the world, unsheltered and unsustained, amid the terrific strife of the elements.

We must say, that the piece was invested with a more intense poetic interest, by the representation of a self-sustained and daring nature, than if the artist had portrayed a penitent and suppliant. You felt as though it was more in harmony with the wild magnificence of the scene, as well as with the heaven-defying impiety of the age. The imagination threw about this single human figure a grandeur, borrowed from the sublimity of the conflict, above which he seemed to triumph by the very might of his spirit. Yet, a kind of fearfulness crept over the feelings, as you saw the deep, unconquered passion of his soul. You seemed to read the unfolded page of his thoughts; as he looked out over the dark waste of the illimitable sea.

Buried beneath the wave, were all the works of human art, and at his feet, lay lifeless, the last form that had clung to him for affection and support. The fearfulness of death had already passed, in the dread sense of its certainty. Alone and unsupported and unyielding, he awaited his speedy destiny, for the waters already dashed upon his feet. The Ark floated in the distance with its inmates, but their miraculous preservation, would have seemed to place them as a different order of beings, beyond the sphere of his sympathies, which were with the world of the dead. For him, there was nothing to hope; the bitterness of despair had settled down upon his spirit. But the deep revenge of his impious nature forbids him to quail, though soon the rising surge will sweep him from his last refuge to perish amid the waves.

We could not but look with a sensation of triumph, upon the noble specimens of Western art. It was a striking proof of the growth of a youthful people, to see these refined creations of art, embellishing a spot, which was so recently the home of rudeness and barbarism. Though the sublimest works of poetry and imagination often emerge from the wild and romantic periods of a nation's early history, when all the fountains of feeling and sentiment are fresh and full, yet it is only in maturer and more cultivated ages, that the ideal receives its embodiment in marble and on canvass. Delicacy and purity of taste, are of slower growth than the fervor of the imagination. The sublime epic of Homer was composed ages before the Grecian artists had adorned her temples and porticoes with immortal statuary and painting. When we find productions of such exquisite grace, as well as of lofty conception, springing up in so early a period of national life, we cannot but look for success, of the highest character, to mark its future history. We well know the comparatively advanced state, in which we, as a people, have come from the world of more ancient civilization and art to the new; and the thousand immediate influences from abroad, that colour our national being. Yet it is

much to have, so soon, even from our advanced position, given such noble and beautiful expression to those forms of the imagination, which have ever signalized the periods of the highest elegance and cultivation.

We could wish that a freer and fuller encouragement met the artist in his wearying but elevating toil. He has a joy and a rapture in giving tangibility to the fair visions of his spirit, yet, though this may be the food for the soul, it is not sufficient to satisfy the wants of the body. It would seem as though we too often endeavored to console ourselves with the thought, that this sublime exultation, which thrills the mind of the painter or the sculptor, as he sees before him the glowing creation of a life's toil, was an adequate reward. Let us realize, that he, who adorns our homes with the forms of the beautiful and the perfect, is as truly entitled to recompense, as he who ministers to the grosser appetites of our physical nature.—That the genius, that embellishes our national life with great and glorious works of art, is as worthy of compensation, as the genius, that throws a bridge of woven wire across Niagara, or spans our land from shore to shore with an iron pathway. It cannot be denied, but that the human mind has ever paid an equal, if not a higher homage, to the painter, the poet, the sculptor, than to those who have ameliorated and polished our physical condition, but it has not seemed to feel the responsibility of rewarding them with as substantial a return. Our life is so limited by the visible, the tangible, the immediate, that we do not reflect upon the truth, that all the outward, physical gratifications we enjoy, are only worthy, as they enable us to arise into the regions of thought, sentiment, and emotion, into the world where lie the labors of the artist. And that, in truth, so far as his toil transcends that of those who merely minister to our sensuous nature, so far as satisfying the nobler and purer longings the mind ever feels for the ideally fair and lovely, so far, higher, should be his recompense.

In giving expression to our feelings, in regard to the influence and sphere of the works of the painter and the statuary, we are not forgetful, that there are higher wants of the soul still to be satisfied, than those that wing the fields of imagination; wants, which find their fruition alone, in the spiritual culture of our moral nature. Yet the love that there is within us of the beautiful in thought and form, is harmonizing and refining in its influence, and should be nurtured as giving a higher symmetry and perfection to our being, and which, in proportion as it is possessed, we believe enables us to have clearer and less earthly conceptions of the spiritual truths of revelation.

The liberal diffusion of "Galleries of Art" is most useful in nourishing, within our national life, these purifying and elevating tendencies. It breaks in upon the busy routine of our utilitarian existence, and wins us away, awhile, into the exalting regions of the ideally great and noble. Build them up within our cities, in

the midst of all their rushing commercial activity, and there the silent statue or painting would look down in its peaceful, thoughtful attitude, reprovingly, upon the hastening human forms, in their restless, life-devotion, to obtain merely the gross and the material. The toil-worn and haggard merchant, as he gives, reluctantly, a leisure hour to the rare and enchanting representations of art, may thus be taught, however unconsciously, that there are nobler themes of thought than his gains and losses. It may too afford the sorrowful, sinful street wanderer, a view of purity and loveliness and sinlessness, that shall glow in all after life, like a warning angel vision. It is like mingling strains of divinest music, with the harsh discord of material life—like placing forms of more than earthly grandeur, to stand amid those of human mould. There ever dwells in the soul, a belief in something higher, nobler, worthier, than that which it sees in the real world around it, and it is vain to say, that the ideally perfect and beautiful may not possess a real, elevating, and refining power through the rare and immortal creations of art. We hope that our own cherished city, will soon follow the example of her more eastern rival, and find time, amid her ceaseless commercial activity, to extend her fostering care to genius, which would adorn some of her noble halls with works of the pencil and chisel, making them most profitable places of retreat of many a leisure hour.

G.

MERCANTILE LIBRARY ASSOCIATION OF ST. LOUIS.

The fifth annual report of this Institution, made by the President, Hudson E. Bridge, Esq., on behalf of the Board of Directors, affords gratifying evidence that a taste for solid and useful literature is gaining ground in our city. During the year 1850 two hundred and eight members joined the association; making the whole number six hundred and fifty eight at the date of the report. Of these, 31 are life members, 248 clerks, 220 proprietors and 159 beneficiaries. In the same period 843 volumes have been added to the library, making the whole number 5,142, valued at $8,574 06.

We are pleased to learn through the public prints that the erection of a suitable building for the library, which was warmly and forcibly recommended by the intelligent and public spirited president, in his report, will probably be commenced during the present season. This is an important movement. Those who undertake to improve the intellectual or moral condition of man, must not rely entirely on books and teachers: the pathway to knowledge and

virtue should be rendered as pleasing and attractive, at least, as the highway of ignorance and vice. The stately Hall, the Lyceum, the Saloon and Picture Gallery possess attractions which operate as inducements leading many to connect themselves with public libraries and to acquire a taste for useful books, who without these appliances would spend their time in frivolous amusements or perhaps in vicious indulgences.

The founders of this association deserve the lasting gratitude of the citizens of St. Louis for their disinterested labors, already performed: but the institution cannot be regarded as placed on a permanent foundation until a suitable building shall have been erected. And we would that the plan could be made to correspond with the mighty destiny of our city, as foreshadowed by the president in his report; that its broad foundation might be laid deep and strong; enduring to the remotest period as a monument of the philanthropy and public spirit of its founders.

DR. McDOWELL'S COLLEGE.

In our rambles, some five or six years ago, we observed near the corner of eighth and Gratiot streets an excavation in which had been commenced the foundation of a building that seemed to be designed for a public edifice; but neither the ground plan, which presented the outlines of an Octagon, nor the massive foundation walls, composed of immensely large blocks of stone, afforded any clue by which we could arrive at a satisfactory conclusion in respect to the particular purpose for which it was intended. The location was near one of our favorite walks; and we observed that the walls rose by very slow degrees; indeed, at times, the work seemed to have been abandoned: but again the workmen were to be seen upon the walls augmenting their hight by adding another course of massive blocks to the pile. Many were the surmises in regard to the objects of the building: some said the projector was mad; and few seemed to entertain the opinion that he would live to see the work accomplished. In the meantime the foundation of another building was laid, adjoining the octagon on the north, and as the walls of this progressed, the plan of a medical college, spacious in dimensions, and commodious in all its arrangements, began to be developed to the eye of the intelligent observer. As the walls increased in hight they seemed to advance more rapidly; and finally after the lapse of a few summers the entire plan was completed; presenting in its lofty octagon of solid masonry, four feet in thickness, the most remarkable edifice perhaps in the city.

In the autumn of 1850 these buildings were opened for the reception of the faculty and students of the medical department of

the University of Missouri, for whose accommodation, it seems, they were designed.

We are aware that there is nothing very remarkable in the simple fact that a medical college has been erected in St. Louis. Indeed this is not the only one in this city; there is another, the plan of which, when completed, will probably be more extensive than that of which we are writing; but our chief object is to show, for the encouragement of the philanthropist, how much can be performed by one individual when he sets his heart upon the accomplishment of a great object.

Doctor Joseph N. McDowell, the founder of this institution, came to St. Louis, some twelve years ago, destitute of pecuniary means; but rich in mental resources. We have long observed that men who possess minds of extraordinary activity are rarely contented with the details of a profession; and, owing to this quality, soon after his arrival we find the Doctor engaged in organizing a medical school in which he became professor of Anatomy and Surgery; but suitable buildings were necessary for the accommodation of both professors and students; this was a *dissideratum*: but he had set his heart upon building up and establishing the first medical institution on the banks of the mighty Mississippi, and was not to be foiled by such obstacles as turn ordinary men aside from their purposes. He engaged in the active pursuit of his profession, discharged the office of professor in the medical school, delivered public lectures, collected materials for a museum and prosecuted his buildings to completion. And it is no unreasonable supposition that he will yet live to see the eight hundred seats in the common lecture room filled with students from this great valley.

Here is an exhibition of heroism of the genuine stamp; compared to which, when rightly considered, the munificence of a Lawrence, who gives a small portion of his annual profits, arising from the labor of others, to institutions of learning, fades as the morning mists before the rising sun; and yet, but few of our own citizens are aware of the extent and true importance of the labors of one in their midst. And few, we believe, are even acquainted with the fact that the most extensive and varied collection of subjects belonging to the natural history of the Mississippi valley, that can be found perhaps in the United States, is deposited in the museum of this institution.

It is here that the untiring industry and philanthropy of the founder is most fully manifested; and here may be seen how much can be accomplished by the persevering industry of one individual. The net income from the museum is appropriated to a dispensatory, for the benefit of the poor; and although the amount may be small in the beginning, yet we recognize, in this department, the foundation of a charitable institution which is calculated, in time, to minister to the affliction of perhaps thousands annually.

Public Balls and Parties provided for the benefit of the poor

are liberally patronized by our citizens. Here is a source of amusement and instruction, far more rational and profitable, open at all seasons of the year for the same benevolent purpose; and we cannot but think that the good taste and philanthropy of our citizens will induce them to select it as a place of frequent resort. And where is the parent that will neglect the opportunity which a visit to this institution affords, of exhibiting to his offspring the vast results which a single individual is capable of producing, by patient and persevering industry? Such lessons are well calculated to inspire the youthful mind with high resolves, and to sustain it when engaged in the pursuit of noble ends.

MONTHLY PUBLICATIONS.

We have neglected for some time to notice our exchanges; not because they are not acceptable; but, having given them a cordial welcome to our table and bid them God speed, we deem it unnecessary to reiterate our approbation. We have been attentive observers of the monthly periodicals since the commencement of our own work; and take pleasure in saying that in our judgment there has been a decided improvement in that branch of literature within this period; and it is gratifying to observe that the demand for the more useful and solid works keeps pace with their improvement. The public is beginning to appreciate the convenience of obtaining, through this medium, a large amount of scientific and practical information which could otherwise only be acquired by access to extensive libraries and the consumption of much time. We say to our co-laborers in this department of literature, press forward: you are in the path of usefulness—and success must attend your labors.

PRESBURY & CO'S. COUNTERFEIT DETECTOR.

The April number closes the 7th vol. of this publication. The work contains "a full and accurate list of counterfeits and altered notes in circulation; corrected and published monthly." The publishers also furnish "a gold and silver coin chart manual" once a year without charge to all subscribers not in arrears. It is hardly necessary to say that every individual in the habit of handling money should be a subscriber.—Price one dollar a year.

HUDSON E. BRIDGE. HARRISON P. BRIDGE.

Bridge & Brother,

No. 43 Main Street, St. Louis, Mo.,

MANUFACTURERS of Pierce's Patent "American Air-Tight," "Empire" and "Victory" Premium Cooking Stoves, and every variety of Wood and Coal heating Stoves, dealers in Tin Plate, Copper, Sheet Iron, Iron Wire, Tinners' tools, machines, also, manufacturers of Jewett's improved Patent Cary Ploughs.

J. Blattner,

MATHEMATICAL and Surgical Instrument maker, Dealer in Guns, Pistols and Sporting Materials, No. 58 North Second Street, between Pine and Olive, St. Louis, Mo., Manufactures and has always on hand: Surveyors' Compasses, Levelling Instruments, Theodolite Pocket Compasses, Spy-glasses, Barometers, Thermometers, Drawing Instruments, Spectacles, Ivory and Gunter's Scales and Protractors, Hour and Half Hour Glasses, Microscopes and Magnifying Glasses, Hydrometers of silver and glass, Hydrometers for acids and salts, Magic Lanthorns, Electrical Machines, &c., also—Surgical and Dental Instruments; Pocket, Dissecting, Cupping and Self-injecting cases; Taylor's Shears, all sizes; Syringes, large and small, Scarificators, Lancets; Forceps; Turnkeys; large Scales and Weights, for Druggists; Prescription Scales on Stands; Revolvers, Guns, Pistols, Powder Flaks, Game Bags, &c., ☞ All the above Instruments repaired at short notice in the best manner.

Wilson & Brothers,

WHOLESALE DEALERS IN HARDWARE, corner of Main and Olive streets, St. Louis, Mo.

C. BENEDICT, Danbury, Conn. D. PEARCE, St. Louis, Mo.

David Pearce & Co.,

MANUFACTURERS and wholesale dealers in Hats, Caps and Straw Goods, No. 120 Main street, St. Louis, Mo.

Hewitt & Steinacker,

SADDLE, Harness and Trunk Manufacturers, wholesale and retail, No. 67 Fourth street, corner of Pine, opposite the Planters House, St. Louis, Mo.

J. A. Ross,

SCALE and Spur Factory, Brass Foundry and Machine Shop, 202 north Second street, between Morgan and Cherry streets, St. Louis, Mo. Constantly on hand and manufactured to order, Platform Scales of all sizes, Counter and Druggist Scales, Flour, Floor, Hay and Car Scales. Also, Beam Scales of Iron or Brass. Scales repaired with neatness and despatch. Spurs, for Dragoons and others, and Brass Castings furnished on short notice.

P. Wonderly,

MANUFACTURER of Copper, Tin and Sheet Iron Work—such as Copper Pipes for Steamboats and Distilleries, Soda Fountains, Copper Kettles, Well and Cistern Pumps, and every other article in his line of business; No. 233 Main street, south east corner of Cherry, St. Louis, Mo. He also manufactures and keeps constantly on hand, Premium Steamboat Cooking Stoves. Tinware always on hand, wholesale and retail.

H. W. LEFFINGWELL, Notary Public. R. S. ELLIOTT, Com'r of Deeds.

Leffingwell & Elliott,

REAL ESTATE Dealers. Auctioneers and Conveyancers, No. 123 Chesnut street, St. Louis. Mo. Real Estate sold on commission, at private sale, or auction. Also, Deeds of all kinds written, and acknowledgments taken. Maps of the city and additions, to be seen at the office, and information given free of charge. Surveying done promptly and correctly.

Glover & Campbell,

Late of Palmyra, Mo., Attorneys at Law,

SAINT LOUIS.

John C. Meyer,

Dealer in Hides, Leather, Oil, and Findings,

No. 88 North Main Street, St. Louis.

Charless & Blow,

NO. 70 and 72, Exchange Building, St. Louis, Mo., Importers and dealers in drugs, medicines, oils, paints, dye stuffs, perfumeries, window glass, glassware, &c.

O. W. Jerome,

WHOLESALE and retail dealer and manufacturer of Cabinet Furniture, chairs, bedsteads, &c., Nos. 44, 46 and 48, Olive street, opposite the Monroe House, Saint Louis, Mo.

Sligo Book Store and Paper Warehouse.

AMOS H. SCHULTZ, No. 136, north Main street, St. Louis, opposite the Bank. Wholesale dealer in books, paper and stationery.

THE undersigned takes the liberty of informing you that he has removed his place of business to Olive street, a few doors above Main, south side, in the Exchange Building, and three doors above Messrs. E. W. Clarke & Co's. Banking House, where he is now opening, and will continue to receive during the Spring months, a large and full assortment of the most

Fashionable Styles of Goods,

In his line, for gentlemen's wear; and where he will be pleased to see his old friends and customers, and their friends with them; and assures those who may favor him with their patronage, that they shall receive his personal attention, and his best efforts to please. Very respectfully, your ob't servant,

J. G. SHELTON.

Giles F. Filley,

MANUFACTURER of the celebrated prize premium cooking stoves; also, Irving's air tight cooking stoves, fancy parlor stoves, fancy box and coal stoves; dealer in tin plate, copper, sheet iron, block tin, rivets, tinner's tools, machines, &c. Warehouse No. 163 north Main street, St. Louis, Mo. Foundry on Lewis street, near the water works.

Clothing at Wholesale.

ARCHIBALD YOUNG & CO., 99 Main street, St. Louis, Mo., Wanzer Minor & Co., 126 Pearl street. Yew York, Moses Wanzen and Henry J. Minor, New York, Archibald Young, St. Louis.

N. B.—We manufacture all of our own goods, and sell at the lowest possible prices

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Fallon & Wright,

CARRIAGE mamufacturers and dealers, No. 90, Fifth street, between St. Charles and Locust, are constantly manufacturing, and have on hand, all styles of carriages, which they will sell on the most reasonable terms. They flatter themselves from the experience they have had in the business, to be able to furnish as good an article as can be bought in any market. Citizens and strangers are requested to call and examine for themselves. All carriages made by us are warranted to be as represented, or the money refunded. WESLEY FALLON,

JAS. A. WRIGHT.

Washington Foundry.

CORNER of Second and Morgan streets, St. Louis, Mo. We are prepared to fill with dispatch, and to fit up in superior style, all orders in the Foundry and Machine business, such as steam engines, mill work, mill castings, railroad cars, wheels for coal trucks, lard and soap kettles of all sizes, press screws, &c., made to order at short notice. Wool carding machines, shearing machines, and a large and superior stock of machine cards, we will warrant equal to any in the Union.

All orders from the country will meet with prompt attention.

J. T. TOWDALL & CO.

Doan, King & Co.

WHOLESALE Dry Goods dealers, 131 and 133 Main street, St. Louis. Job P. Doan, St. Louis, Wylley King, do., Richard Bigelow, New York.

Edward Mead,

IMPORTER and wholesale and retail dealer in watches, jewelry, cutlery, guns, pistols and fancy goods, No. 54, Main street, first block north of the Planters' House, east side, St. Louis Mo.

Crow, McCreery & Co.,

WHOLESALE dealers in Dry Goods, No. 71 Main street, St. Louis Mo. Wayman Crow, Phoceon R. McCreery, Wm. H. Barksdale, Wm. A. Hargudine, Charles D. Appleton.

Tobacco.

T. MULLEN, Tobacco Commission Merchant, 21 Washington Avenue, St. Louis, Mo., for the sale of Cuba and Havana Tobacco; also, for Virginia manufactured tobacco, for which he has the agency.

J. BUNDING. B. VOIGT.

Bunding & Voigt.

WHOLESALE dealers in drugs, Chemicals, paints, oils, dye-stuffs, window glass, glassware, &c., &c. No. 100 Main street, St. Louis, Mo.

Great Western Clothing Emporium!

WHOLESALE AND RETAIL,

No. 124 *and* 126 *Second street, corner of Vine.*

W. L. & J. BIGELOW & Co., St. Louis, Mo.

BAKER, NELSON & Co., 51 Cedar street, New York.

Thomas Grey,

BLACKSMITH and Iron Worker, No. 90 North Second Street, between Olive and Locust, St. Louis Mo. Keeps constantly on hand, and manufactures to order, Ox Chains, Sledges, Wedges, and every description of Mining Tools, also Iron Hobbles and Picket Pins. ☞ Blacksmith work for Housebuilders, at the lowest prices. ☞ He has always on hand, the highly recommended *Iron Frame Bedstead, and Camp Stool.*

General Agency at Dubuque, Iowa.

FOR Public Lands—Real Estate—Military Land Warrants—Payment of Taxes—Investigation of Titles—Amicable Collection of Debts, and all other business within the legitimate sphere of an Agents duties, by

CHARLES CORKERY,

Notary Public and Commissioner of Deeds and Depositions for all the North-western States, Missouri, included.

October, 1850.

J. Henwood,

Hat Manufacturer, 72 Chesnut Street, St. Louis, Missouri.

Fruit Trees and Shrubbery,

FOR sale by JOHN SIGERSON & BROTHERS, at their fruit farm and nursery. This establishment is located seven miles South of St. Louis, Mo. There are Omnibus Coaches running daily from the City within one half mile of the establishment. The Nursery and Gardens are open at all times (Sundays excepted) for the reception of visitors. Horticulturists and Amateurs are respectfully invited to visit the establishment and examine for themselves. In directing the attention of the public to their nursery, they would remark that one of the firm, (Mr. James Sigerson,) has been engaged in the above business for the last twenty-five years; during that time he has tested many of the varieties now growing. This, with the assurance on their part of an intention to increase the number of their trees, as well as to add to their assortment from year to year, furnishes a strong guarantee to persons wishing to make choice selections of fruit, that they can always be supplied. Their prices for trees will be as reasonable as at any similar establishment East or West, and when desired, trees will be delivered free of charge in the city or on steamboats; packed in good order for their destination.

☞All letters addresed to John Sigerson, St. Louis, or to James Sigerson, Carondelet, will meet with prompt attention.

JOHN SIGERSON & BROTHERS.

M. PAWLEY. H. B. HAWKINS.

Pawley & Hawkins,

MANUFACTURERS OF FIRE PROOF VAULTS, Safes, Iron Window Shutters and Doors, cast and wrought iron railings, and all kinds of ornamental iron work. Also, heaters for public and private buildings.

In the manufacture of iron railing, either wrought or cast, over five hundred designs in their possession may be examined, embracing all the most beautiful patterns of the eastern countries, public and private buildings.

Every article in their line, made with despatch; and warranted equal to any manufactured in the United States. No. 118 Third street, St. Louis, Mo.

ROLIN CLARK, } PHILANDER BRALEY,
JOHN RENFREW, } ALEXANDER CROSIER.

Eagle Foundry and Engine Shop.

NORTH west corner of Main and Biddle streets. Manufacturers of all kinds of machinery, boilers and sheet iron work, portable circular saw mills always on hand, all orders executed with fidelity and despatch.

Home Mutual Fire and Marine Insurance Company of St. Louis.

NOTWITHSTANDING the heavy loss sustained by this company in May last the stock notes now on hand amount to $350,000. The stock notes of the company are secured by lien upon real estate and approved endorsers. Office, No. 120 North Third street.

Directors:—I. L. Garrison, A. P. Ladew, P. Salisbury, John Whitehill, Jos. A. Eddy, Henry Kayser, D. D. Page, Theron Barnum, John Kern.

ISAAC L. GARRISON, President,

D. D. PAGE, Treasurer,
PHILANDER SALISBURY, Secretary.

John S. Watson,

(Late of Wilgus & Watson.)

NO. 51° 40′ Pine street, between 2d and 3d, next door above the old stand of Wilgus & Watson, house, steamboat, sign and ornamental painter, grainer, glazier, whitener and paper hanger; also, dealer in all the latest styles of French and American paper hangings. He keeps constantly on hand and ready for sale mixed paints of all colors, oils, varnishes, Japan, turpentine, white lead, putty, and a large and superior assortment of French and American window glass, which will be cut to any size to suit customers.

☞Particular attention paid to estimating on houses or steamboats. nov.

Missouri State Mutual Insurance Company.

DIRECTORS:—John O'Fallon, C. M. Valleau, Reuben Knox, Daniel D. Page, Oliver Bennett, John Sigerson, John S. McCune, Joseph A. Eddy, True W. Hoit.

This company is established upon the mutual principles of insurance, and is emphatically a home institution. The fire risks of this company are extended into all parts of this State. Its earnings are never employed or invested in stocks or real estate, but kept for the prompt liquidation of losses, and under the immediate control of the Directors. Every person insuring with this company becomes interested in its success, and its profits instead of being divided among a few stockholders, belong to those who insure in this company.

The Directors aware of the importance of a well secured fund, reliable in case of loss, and ample under all ordinary calamity, assure the public that they have already a pledged fund, ample and reliable for any contingency, with a monthly increase of premiums of over ten thousand dollars. For the length of time this company has been in operation (six months) its business has been extended into all parts of the State and the city, and has received from the public a liberal patronage, which has placed it upon a permanent basis.

By an act incorporating this company, the parties insuring property therein, are entitled to the entire profits of the institution, the premium notes are also pledged by the charter for the payment of losses.

The portfolio of the company is at all times open to the inspection of its members and those wishing to make insurance with it. Policies are issued from thirty days to six years, thereby effecting a permanent insurance, with a return premium of from fifteen to fifty per cent, according to the term of insurance.

Agents for this company, may be found in all the principal towns in the State to whom application may be made.

Office of the company over E. W. Clark & Brother, corner of Main and Olive streets, Exchange building, where insurance will be effected at the tariff rates of premium.

C. M. VALLEAU, President,

H. D. BACON, Treasurer.

S. F. LEDYARD, Secretary.

John Loughborough,

ATTORNEY AND COUNSELLOR AT LAW,

OFFICE—No. 56 Pine street, near Third, (adjoining that of the Clerk of the Supreme Court.)

Woods, Christy & Co.,

WHOLESALE dealers in Dry Goods, No. 75 Main street, St. Louis, Mo. James Woods, William T. Christy, James C. Christy, Robert K. Woods.

Saint Louis Furniture Store,

WM. M. HARLOW, proprietor. Manufactures and keeps constantly on hand every variety of household furniture, matresses, window blinds, willow ware, &c., &c.

Also, manufactures to order every article in his line, with despatch. Orders from abroad promptly attended to, and goods carefully packed. All goods warranted as recommended.

New Warehouse, No. 88 Second street, between Olive and Locust streets, St. Louis, Mo.

New Madrid County Records.

PERSONS wishing to obtain transcripts of records in New Madrid county, can procure them without delay by addressing the undersigned. And to avoid the inconvenience of remitting small sums, the records will be directed to George Pegrim & Co., St. Louis, who will deliver the same upon the payment of the fees.

WM. MOSELEY.

March, 1851. Recorder of New Madrid County, Mo.

THE BANKING HOUSES OF ST. LOUIS.

D. D. PAGE. E. D. BACON.

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XXXVIII.

VOL. VI. MAY, 1851. NO. 2.

THE WESTERN JOURNAL,

OF

AGRICULTURE, MANUFACTURES, MECHANIC ARTS,
INTERNAL IMPROVEMENT, COMMERCE,

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PRINTED BY MORITZ NIEDNER—OFFICE, NORTHWEST CORNER
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1851.

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ENGLISH AND GERMAN

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February 1st, 1851.

THE

WESTERN JOURNAL.

VOL. VI. May, 1851. No. II.

Article I.

MISSOURI.

The history of the past is of little use to one ignorant of existing facts: the genius of the present age, the social condition, intelligence, and pursuits of the people; the geographical relations and physical resources of the country are facts which must be known before we can make a practical application of historical knowledge. In general, individuals, who devote much time to literary pursuits, pay but little attention to the study and investigation of subjects relating to the present or future condition of their own country. Their minds become familiarized with, and delight to dwell upon, distant events and remote objects, whether of time or place; while they seem to regard those things which lie within the sphere of their more immediate observation, as unworthy of contemplation, and incapable of affording either pleasure or profit: nor is this state of mind peculiar to the literary portion of our countrymen. Few of our people, whatever may be the grade of their intelligence, seem to regard a knowledge of the resources of their respective States as an accomplishment worth the time employed in its acquisition; and but few, we believe, even cultivate a taste for the improvement of their own homesteads. These observations may be regarded as applicable to the American population at large; but nowhere else have we observed a people whose appreciation of their own country was so low as seems to have been that of the inhabitants of Missouri in times past; and we are persuaded that it is owing, at least in part, to this cause that the settlement of this State has progressed by such slow degrees.

During a residence of nearly thirty years in different frontier settlements, we have always observed a desire manifested on the part of the early inhabitants to encourage emigrants to settle amongt them: but such does not seem to have been the case in Missouri. Whether this peculiarity of the Missourians was owing to an honest conviction that people could do better anywhere else

than here, or to a feeling of exclusiveness, need not be discussed in connection with the present subject: but the time is fresh in the memory of many, when emigrants to Missouri were regarded with caution, if not with some degree of suspicion: and many were the surmises of the older inhabitants as to the causes which expelled the intruder from the community whence he came—they seemed to be unconscious that the country itself offered any inducements.

Nor have the resources of the State been properly understood and appreciated in other parts of the Union. The mild climate and varied products of the central region were less attractive to the enterprising emigrant than the staples of more southern and northern latitudes; and consequently Missouri and Southern Illinois, though inhabited by white men at an early period of Western history, have not been settled, and their resources developed with that degree of rapidity which has distinguished the growth of other parts of the West.

A change, however, in this respect has taken place within a few years past; and if the spirit of enterprise, which has been awakened in Missouri and Illinois, should be fostered by the people, and encouraged and sustained by judicious legislation, the progress of these States in population and wealth will, henceforth, far exceed that of any other part of the continent of equal area.

The many advantages of the central region are beginning to be understood and appreciated. This is the true region of Indian corn, of grass, of grapes, of pork and of beef; also, of hemp and tobacco. Wheat, and all other grain bearing cereals; potatoes, flax, and wool may all be cultivated with profit. It is also the true apple region; while it produces almost every variety of other fruits that thrive elsewhere in the temperate zone. And, if in connection with these products we take into consideration its boundless mineral resources, we shall discover that the elements of wealth and comfort are more abundant and varied than on any other part of the whole earth; and the time is near when men will wonder how it happened that a country so much to be desired remained unimproved so long after its discovery.

We deprecate the practice of extolling a country above its merits. We would not willingly mislead the humblest emigrant that may ever reach our shores: and therefore we should say that, notwithstanding the boundless resources of this region, none should imagine that wealth can be obtained without industry; or, that these resources can be developed without enterprise. But it may be safely affirmed that in no other country are the rewards of labor more sufficient and certain; or the inducements to the undertaking of individual and social enterprises greater. Every department of industry is based on a more permanent foundation in Missouri than in the Northern or Southern States. No pursuit indicated by the climate and natural resources of the country, when once established here, can ever suffer materially from the competition of other

States, or foreign nations. Our bread and provison staples are so varied that, in the ordinary course of providence, seasons of scarcity must be less frequent here than in almost any other part of the whole earth; and, owing to these and other causes we shall not be liable to the frequent and severe pecuniary revulsions that occur in countries where a large portion of the inhabitants subsist on the food, and labor on the raw material, produced in distant lands.

Nor is the growth of this region less interesting in a social and national point of view: the development of the centre will constitute a social barrier between the North and South, neutralize their prejudices, and serve to hold in check the efforts of each to control and give direction to the policy of the Nation. Genius, talent and learning will be naturally attracted to the centre; because here they can exert a greater degree of influence upon the minds of their contemporaries. And here will congregate the arts which embelish and refine, as well as those calculated to produce wealth and comfort: and finally, whether for good or evil, the central States will not only give form and tone to our national character but control the destiny of modern civilization. This is no chimera. Man, in connection with this subject, is to be regarded as the offspring of nature; and, resist her influences as he may, she still asserts her prerogative and impresses upon her children of different climes, distinctive forms and colors, indicating the region of their origin; and harmonizes their mental and moral natures—their tastes and desires—with the physical condition of the country they inhabit. The correctness of these conclusions is sustained by the history of civilized man, from the earliest ages to the present day; and however reluctant the more northern and southern States may be to assent to these views, we are persuaded that every intelligent and well informed individual will recognize their conformity with the laws of nature and the active influences that mould the character and control the destiny of man in every state of his social existence.

The history of the European race in Missouri is embraced in a period scarcely exceeding the life of one individual. In 1820 the State contained but 66,586 inhabitants; in 1850 the population had increased to 682,907. And although her progress has not been equal to that of some of the other new States, yet, when we take into consideration the effects of those causes which have been noticed as retarding her growth, and the accelerated increase which has taken place within a few years past, we find strong reasons in support of the opinion that her future career will be unrivalled by any other State in the Union.

It may be admitted that Illinois contains a larger quantity of fertile soil, in proportion to its area, and that in a commercial point of view its location is not less favorable; but the vast mineral resources of Missouri constitute an element of wealth which, in connection with her agricultural capacity, will in time place her

the first on the list of American States. For it must be remembered that the wealth drawn from the mines, so far from diminishing her agricultural capacity and profits, is calculated to increase both, by affording a home market for a greater variety of products.

The causes which hindered the growth of Missouri in times past are gradually disappearing; and others calculated to promote its progress, are beginning to operate with manifest efficiency. As evidence that a decided change is already going on, we notice that the increase of population for the two years ending in 1850, was 93,936, being 16,902 more than the increase of the four years ending in 1848, and we learn through the public Journals from different parts of the State that the emigration this season exceeds that of any previous year.

Our railroad projects, if prosecuted, will greatly accelerate the settlement of the districts through which they are located; and if nothing should occur to check the present tide of foreign emigration, it may be regarded as a reasonable estimate to set down the population of Missouri at one million and a half in eighteen hundred and sixty; but that would give us only about twenty inhabitants to the square mile, scarcely a tithe of the number that she is capable of supporting in a comfortable condition. With a population as dense as that of Massachusetts, Missouri would contain about 10,000,0000 inhabitants, and we hazard the prediction that even a greater number will be attained in the lifetime of many now in existence.

We have taken this hasty glance at the present condition and future destiny of Missouri, not in a spirit of boasting, but for the purpose of suggesting to the minds of our citizens a profitable train of reflection. The youth who is about to enter upon the serious business of life, should contemplate the effects which will be likely to flow from the mighty changes we have indicated, and project his plans with reference to their occurrence. The time is propitious for laying the foundation of his fortunes; and by the exercise of a reasonable degree of industry and economy, if his schemes of life be well digested, the current of events will bear him on to the attainment of all that he can reasonably desire.

The man of riper years who is looking forward to the education and establishment of his children, may profit by recurring to these views: he should bear in mind that his offspring are destined to act their parts in a community widely differing in its condition from that to which he himself has been accustomed; and should study to prepare them for that state of society in which they are destined to act as members.

The vision of the political economist, who aims to give direction to the varied pursuits of mankind, must continually embrace the future; or the changes going on will falsify his doctrines even before they are promulgated. He must study profoundly the resources of the next generation, as well as the wants and conveniences

of the present; for the purpose of judging how the burthens incident to social progress may be distributed, and so imposed that each shall be made to bear their just proportions. For, although praiseworthy, yet, it would be an unreasonable sacrifice on the part of our present population to exhaust their means in making improvements for the enjoyment of the five or, perhaps, ten million inhabitants of the next generation, without transmitting a portion of the burthen with the benefits. This is a question upon which the progress of improvements in Missouri must, in a good degree, depend for some years to come; and it may be profitable to give it a passing consideration in connection with our subject.

We are aware that a very respectable and prudent class of men hold the doctrine that neither individuals nor governments should incur an obligation with a view to its being discharged by their successors. This may be a sound maxim in countries whose resources are fully developed, and where the population has reached its maximum; but cannot be regarded as applicable to a state in the condition of Missouri. Let us take the case of our projected railroads as an instance. Any attempt to construct them by means raised immediately from our citizens would be perfectly vain; nor is it probable that the time will arrive during the existence of the present generation when these works would be undertaken upon this principle. And if we suppose the next generation, convinced of the importance of the work, should undertake its accomplishment, they would be compelled to pay the entire cost: and would consequently be in no better condition than if we had done the work entirely on their credit, provided we pay the accruing interest. Then it would seem to follow that whatever amount we may pay towards the construction of permanent works, whether it be five, ten, or fifty per cent of their cost, is so much bestowed upon those who succeed us. But in Missouri it would not be the descendants of our own citizens only that would enjoy the benefits of their labor and enterprise; but emigrants from other States and foreign countries would come in for much the larger share.

Upon the principle of dividing the burthen of making permanent improvements between the present population and that which we may reasonably expect to have twenty years hence, it is in our power to carry out a thorough system of internal improvements with complete success, provided due regard is had to the amount that may be invested without materially affecting the ordinary pursuits of the community.

But after all that may be said, the burthen of our successors is only contingent; for in case the value of the property created remains equal to its cost, they will be fully indemnified for the discharge of the obligations which may become due in their time.

We have made this digression in view of the question which is being discussed in many counties in our State touching the policy of subscribing for stock in works of public improvement. We

have considered the subject in all its aspects, and feel persuaded that no other method yet devised for raising the means of constructing public works, is more safe to the community; nor, in a social point of view, more just in its operations than county subscriptions. By this means the property of every individual is brought to bear upon social objects; and the selfish speculator on the enterprise and public spirit of his neighbor is made to impart something for the benefits which he derives from public improvements.

We are pleased to learn that county bonds are beginning to be favorably regarded by capitalists, as a safe mode of investment, and should their credit be sustained by the punctual payment of interest, they are likely to become one of the most efficient social agents that has yet been discovered.

In reference to the future population and wealth of Missouri, we have said: she was destined to occupy the first place in the list of American States; but it will depend mainly on the present generation whether her moral grandeur shall correspond with her wealth and numbers. The privilege of giving direction to the social institutions, and tone to the moral character of the millions who are to succed us, cannot be too highly appreciated by every citizen of Missouri. The foundations of the social and moral institutions of this mighty State are to be laid by us of the present generation; and where is the individual so regardless of the future glory of his State, and the approbation of his race as not to desire that his name should be recorded as a coadjutor in this great work? Improvements in the moral and social condition of a people are of all human undertakings, deemed practicable, the most difficult. A slight error tolerated, or perhaps unperceived, in the beginning takes deep root, and gaining strength with time, becomes so interwoven with the social fabric that its entire eradication defies every human effort. Hence we should aim to exclude from all our institutions every vicious principle, and transmit them, if possible, to our successors free from every vice that may tend to corrupt and destroy them. And let us continually bear in mind that our duties are commensurate with the privileges we enjoy; and, that we shall incur the just censure of mankind and the displeasure of the Creator if we neglect to improve the talents committed to our keeping.

Article II.

CHEVALIER CLAUSSEN'S IMPROVEMENTS IN THE PREPARATION OF FLAX AND IN BLEACHING.—THE SPECIFICATION.

From the London Mechanics' Magazine.

We have now the pleasure (exclusively we believe) of laying before our readers the specification at length of the important improvements in the preparation of flax, by Chavalier Claussen, which have recently attracted so large a space of public attention, and were emphatically referred to by Sir James Graham in the Free Trade Debate in the House of Commons (Feb. 13), as giving promise of a new career of prosperity to both the farmers and manufacturers of this country. Sir James had been present the day before, at a Meeting of the Council of the Royal Agricultural Society, when a long and interesting paper on the subject, by Chevalier Claussen, was read, but which did not enter into any of the details of the new processes by which the improvements in question are effected. The paper, after treating, first, of the reasons in favour of an extended cultivation of flax and hemp in the United Kingdom—of which the chief are, the relief it would afford to the agricultural interest, the deficiency of the existing supply of cotton, and our dependence for even that limited supply on foreign countries—then proceeded to show the suitableness of our climate and soil to the growth of these plants, and the large profits which the landowner and farmer might fairly anticipate from an application of their industry in this direction. The existing processes were next discussed: and as a knowledge of these is very necessary to a clear comprehension of the value of the improvements which Chevalier Claussen has introduced, we extract the following particulars from this part of his paper:—

Under the system of preparing the flax, hitherto followed, four modes of steeping or "retting" the plants are resorted to. The first consists of the plan of *dew retting*, or allowing the flax to remain exposed on grass land for a considerable number of days exposed to the action of the rain, dews, and atmosphere. The plan, however, is one which, from its obvious inconveniences, is not calculated to meet with general approval in the present advanced state of agriculture, and is indeed very rarely adopted.

Probably the best mode of steeping the flax is that of placing it *in running streams*, according to the mode adopted in Courtrai, the principal flax-growing district in Belgium. The flax so prepared generally realises a much higher price than any other description of flax. There are, however, certain peculiarities in the waters of the river Lys which makes it admirably adapted for

steeping purposes, and which are not possessed by any streams in this country. Independent of the peculiarities of the water, the steeping of flax in running streams cannot be made generally available in this country, as they are mostly too rapid in their character.

In the absence of suitable streams, recourse is had to a mode of *steeping in pits or pools.* But so many favorable conditions are required to be obtained, and so many unfavorable ones to be avoided, in the selection of the site for the pool, and the supply of the water required, that it is probable a desirable or perfect steep pool could not be formed in any part of the country. The soil forming the bottom and sides of the pit will have an influence on the colour of the fibre ; clay, gravel, alluvial and peaty soil, will each impart some peculiar dye to the material, which more or less affects its value. The water used in the pit or pool must not be spring water, and it must not have flowed over any soil containing metallic deposites; and rain-water is not well calculated for the purpose. But, in addition to all these difficulties attendant upon obtaining the requisite means, the grower of flax has to contend against all the uncertainties and risks of either over or under-steeping his flax. "One sultry night," says one of the reports of the Royal Flax Society, "while it is in the steep, and nearly rotted sufficiently, is enough to carry the fermentation beyond the safe point. So much is this feared by farmers, that almost all flax is underwatered ; and although much of it is afterwards watered on the grass, yet the great proportion is brought to market with the shoves still unseparated in bits on the fibres." But while the sultry nights of summer are unfavorable to the steeping of flax, and inconvenient to the farmer, inasmuch as his labourers are at that season generally otherwise employed, it is also obvious that during the winter, when comparatively little farm labor is carried on, the process of steeping must be discontinued in consequence of the temperature.

A fourth process has within the last few years been very strenuously advocated by the Royal Flax Society in Ireland, which consists in *steeping the flax in hot water.* This mode (Shenck's), although doubtless an improvement upon any of the existing plans, still does not afford the means of obtaining that complete separation of the fibres which it is desirable to obtain.

* * * * * * *

Not only is the present process of steeping inconvenient and unnecessary, but it is highly injurious, as it imparts its injurious dyes to the fibre, deteriorates it, and gives to it an inequality of strength, which in the subsequent stages of manufacture, are exceedingly difficult to be overcome. I have found this to be more particularly the case in the preparation of the flax into a material capable of being spun alone or in combination with wool and cotton upon the existing machinery.

The more striking features of Chevalier Claussen's process, as distinguished from the preceding, were stated to be these:

1. That by this process the preparation of long fibre for scutching is effected in less than one day, and is always uniform in strength and entirely free from colour, much facilitating the after process of bleaching either in yarns or in cloth.

2. That he can also bleach it in the straw at very little additional expense of time or money.

3. That in consequence of a more complete severance of the fibres from each other, and also from the bark and boon, the process of scutching is effected with half the labour usually employed.

4. That by the new process flax is rendered capable of being spun, either in whole or in part, on *any existing spinning machinery.*

5. That the fibre to be mixed with cottons or spun alone on cotton machinery, is so completely assimilated in its character to that of cotton, that it is capable of receiving the same rich opaque colour that characterises all dyed cotton; and, consequently, any cloth made from flax-cotton yarn can be readily printed, dyed, or bleached by the ordinary cotton processes.

6. That with respect to the advantages of being able to spin flax in combination with wool, on the existing woolen machinery, the first is, that the flax prepared by M. Claussen is capable of being "scribbled," "spun," "woven," and "milled," in all respects as if it were entirely wool; having an advantage in this respect over cotton, which has not the slightest milling properties; on the contrary, the flax fibre is capable of being even made into common felt hats with or without an admixture of wool. To such an extent has the milling property of flax been proved, that a sample of cloth was exhibited which had been woven to 54 inches wide, and milled up to 28 inches wide.

7. That the flax-fibre will not, under any circumstances, when prepared for spinning with wool, cost more than from 6d. to 8d. per lb., while the wool with which it may be mixed will cost from 2s. to 4s. per lb.; consequently reducing the price of cloth produced from this mixture 25 or 30 per cent. below the present prices of cloth made wholly from wool, and being of equal, if not greater, durability.

8. That short-wool refuse, which cannot by itself be spun into a thread, may, by being mixed with this thread, be readily spun and manufactured into serviceable cloths.

9. That by this process flax may be also so prepared as to be spun in any certain proportions, with silk upon the existing silk machinery; that when so spun, it is capable of receiving considerable brilliancy of tint. That the fibre may be prepared for thus spinning at an uniform price of from 6d. to 8d. per lb. That as it may be spun in any proportions with silk, it is evident that the price of the yarns must be reduced according to the relative pro-

portions of the materials employed; thus extending the markets, and giving increased employment to the operatives.

In evidence of these advantages, the Chevalier laid before the Meeting the following specimens:

1. Samples of flax in the straw pulled and rippled.
2. Sample of flax-straw, prepared according to the new process, adapted for linen manufacturers.
3. Sample of long fibres scutched from the above.
4. Samples of pure flax-fibre, or "British cotton," adapted for spinning on cotton machinery.
5. Sample of yarn spun on cotton machinery, some from all flax-fibre, others mixed in various proportions with American cotton,—these mixtures being termed by the inventor flax-cotton.
6. Samples of flax-fibre prepared for mixing with wool.
7. Samples of yarn produced on ordinary woollen machinery, composed of wool and flax in various proportions, termed by the inventor flax-wool.
8. Samples of flannel woven from the above.
9. Samples of fine cloth woven from yarn composed of flax and fine wool in various proportions and dyed.
10. Flax-fibre prepared for mixing with silk, and dyed of various colours.
11. Flax-fibre mixed with spun silk, and termed by the inventor flax-silk.
12. A sample of yarn produced from the above.
13. Samples of flax-cotton yarn dyed of various colours.
14. Samples of cloth woven from flax-cotton yarn and wool, dyed.

We shall now proceed to give Chevalier Claussen's specification itself; but before doing so, may point out to the reader that the Chevalier's patent embraces, besides his improvements in the preparation of flax and hemp, and in yarns made from these and other materials, some new processes in bleaching generally, which appear to be only second in importance to those relating to flax; since by one of them (the ingenious double decomposition process) the same bleaching liquors may be used over and over again, without any other loss than necessarily attends their manipulation.

THE SPECIFICATION.

Firstly, my said invention, in so far as respects improvements in bleaching, has reference to the bleaching of all kinds of vegetable productions, and of fabrics or articles composed of such productions, and consists of the following improved processes:

In the usual methods of bleaching fabrics, such as calico, the goods are first immersed in a bleaching liquor (commonly the solution of hypochloride of lime, the "chloride of lime" of commerce), and then are steeped in a bath of water, acidulated with

sulphuric acid. By this plan the chlorine is set free, either in its simple form or in combination with oxygen (as chlorous or hypochlorous acids), or in chemical union with the hydrogen of the water (as hydrochloric acid), and thus either is wasted, by its escape, or is rendered injurious to the fabric, by remaining too long in contact with it.

Now instead of this, I adopt the following process, whereby the whole, or a great portion of the chlorine, or chloro-compound, is kept in a combined state, and recovered for future use. By the term "*chloro-compound*," I do not mean a *salt containing* "*chlorine*," but an acid having "chlorine" for its basis, such as chlorous or hypochlorous acids.

In this process, then, of bleaching, I take the goods, after they have passed through the bleaching liquor (say a solution of the hypochlorite of lime), and then steep them in a strong solution of some salt, whose acid has a more powerful affinity for lime than hypochlorous acid; thus a strong solution of sulphate of magnesia may be employed, the sulphuric acid of which, having a strong affinity for lime, combines with the earthy base of the bleaching salt above-mentioned, and forms sulphate of lime, and the chloro-compound being thus liberated, unites with the magnesia of the sulphate of magnesia, and forms a new salt (hypochlorite of magnesia), having bleaching properties similar to the lime salt first employed.

This newly-formed compound may be, in the next instance, used as a *primary bleaching agent*, and may again be subjected to the process of double decomposition, as in the foregoing example. Thus, the goods having been exposed to the action of hypochlorite of magnesia in solution, may then be steeped in a liquid holding in solution some carbonate or other salt, for whose base the hypochlorous acid has a greater affinity than for the magnesia. In such a case, the carbonic acid having also a strong attraction for the magnesia, combines with it, to form a carbonate of that earth, and the liberated chloro-compound, instead of escaping, or remaining so long in contact with the goods as to injure them, combines with the base of the carbonate employed to produce decomposition, and forms a new salt having bleaching properties. This salt may also be brought under the same laws of double decomposition, as exemplified before, and with similar results. Thus, if the carbonate employed in the foregoing instance had been carbonite of barytes, and a solution of sulphate of magnesia, or of lime, were brought into contact with the resulting chloro-compound salt of barytes, a precipitate of the base as a sulphate of barytes will take place, and the chloro-compound will unite with the lime or magnesia, to form a bleaching salt.

I would mention, however, that, in bleaching flax, or other like vegetable material for making linen, no compounds should be used which are likely, during their decomposition, to evolve any gaseous

matters such as carbonic acid or chlorine, as, by their development and expansion in the fibrous tubes, the flax, or any similar material, would be rendered not so fit for spinning with the ordinary flax-spinning machinery; but in bleaching flax, or any similar material which is to be combined with other materials for spinning and felting according to my invention, compounds evolving gas may be safely used, as I shall hereafter more fully specify and explain.

For the purpose of bleaching by the method of double decomposition, I do not confine myself to the compounds already mentioned as examples, nor to any particular salts or class of salts; but I claim a right to use any which, when placed under the like circumstances, as before examplified in the case of goods treated by the hypochlorite of lime and the sulphate of magnesia, will be subject to the same chemical law of decomposition, and will produce the same result.

However, I may particularise as among the salts suitable for decomposing the chloro-compound salts, or assisting themselves in the process of bleaching, the carbonates (such as the carbonate or bicarbonate of soda), sulphates (as sulphate of magnesia, &c.), nitrates (as nitrate of soda, &c.), acetates (as acetates of potash and of lead, &c.), prussiates (as prussiates of potash, &c.), chromates (as chromate and bichromate of potash, &c.), tartrates (as tartrate and bitartrate of potash, &c.); but I repeat, that I do not confine myself to these which are merely given as examples.

Another mode of bleaching which I sometimes employ, and which is especially applicable to goods composed of both animal and vegetable fibres, is as follows:—I take the goods, after they have been steeped in any of the ordinary bleaching liquors, such as the solution of hypochlorite of lime (chloride of lime), and while they are still wet I expose them to the fumes of sulphur, slowly burning in a suitable chamber or stove. In this case, I have two powerful bleaching agents at work, viz., the hypochloric compound and the sulphurous acid produced by the combustion of the sulphur. A portion of the sulphurous acid combines with the base of the chloro-compound salt, to form a sulphite of lime or magnesia, as the case may be, and a small portion of sulphuric acid may also in this case be formed, which, with the earth or base, would form a sulphate. In this way the chlorine, or chloro-compound, remaining in the wetted goods is liberated, and allowed to act freely upon the articles to be bleached. In this last method of bleaching I have ascertained that there may be occasionally substituted for the ordinary and known bleaching liquids, certain chromates, manganates and hypermanganates, &c.

Secondly. My improvements in the preparation of materials for spinning and felting have especial relation to flax and hemp, and other plants to which the same may be applicable; and the processes I use to prepare the same, though possessed of some features common to the whole, vary according to the purposes to

which the fibre obtained from the said materials is to be applied—that is to say, according as the fibre is required to be long or short, fine or coarse, and the machinery in which it is to be spun is adapted to the spinning of one or other sort of fibre.

By the term "*fibre*," as used throughout the specification, I mean that portion of each plant which is capable of being spun or felted; and my invention applies to the "fibre" surrounding the stems of dicotylidenous plants, and to that existing in the stems and leaves of monocotylidenous plants.

In the following examplifications of my improved modes of preparation, I shall throughout suppose flax or hemp to be the material operated upon.

If I have to deal with the plant from the time of its being first cut down or pulled for use, I take it in the state of straw (after the seed has been stripped from it), and subject it to the following, which I call my "primary process:"—

I first steep the straw in a solution of a caustic alkali of about one degree of Twaddel's hydrometer, and for such a length of time as may be most convenient. If despatch is required, I use the solution in a boiling state; in which case an immersion of about six hours is sufficient. If more time can be conveniently allowed, I employ a solution of a temperature of about 150° Fahrenheit, and prolong the immersion for about twelve hours; and so in proportion to the degree of temperature. The solution may be even used at a lower temperature, with a corresponding prolongation of time, but in no case need the immersion exceed a couple of days at the utmost.

The object of the preceding treatment is twofold:—First, to decompose, dissolve, or remove (more or less, as required) the glutinous, gummy, or other matters which connect the fibre with the woody portions of the plant, and, second, to discharge or decompose any oleaginous, colouring, or extraneous matter contained in the straw, without allowing the matters so discharged to stain the fibre; and these results are obtained by the action of the alkaline solution.

In the preceding mode of preparing vegetable materials, I generally use a solution of caustic soda; but other alkaline liquors will answer the purpose,—such as a solution of caustic potash, or of lime dissolved in or diffused in water; or, indeed, any substance having the like power of removing, discharging, or decomposing the colouring, glutinous, gummy, or other foreign matters contained in the straw. and which would interfere with the whiteness of the fibre, or with its ready separation and manufacture.

If the fibre is required to be long, like that commonly spun in flax machinery, I subject the straw to a second process, for the purpose of getting rid of any of the alkali still adhering to the straw or fibre, and for the purpose of completing (if necessary)

the removal of any glutinous, gummy, colouring, or extraneous matters.

To this end I take the straw from the alkaline solution, and steep it for about two hours in water acidulated by sulphuric acid in the portion of about one part of the acid to from two to five hundred parts of water. Some other dilute acids will also answer this purpose, such as dilute muriatic acid, &c.; but sulphuric acid is to be preferred. Or, I transfer the straw, while yet wet with the alkaline solution, to a suitable chamber or stove, where I subject it to the action of sulphuric acid, or the fumes produced by the slow cumbustion of sulphur. In both cases the acid combines with any free alkali, remaining on the straw or fibre to form a sulphite or sulphate, according to the acid employed; while an excess of either sulphuric or sulphurous acid will complete the decomposition, discharge, or removal of the glutinous, colouring, and other matters.

I next remove the straw from the acid bath, or sulphur-chamber, or stove, and wash or otherwise treat it with water, till all soluble matters are removed.

If the fibre is required to be decolorised, the straw may now be exposed to one of the bleaching processes which I have already described, or to any of the other known processes. It may then be dried, and made ready for breaking and scutching by the means ordinarily followed in the manufacture of long flax.

I would mention here that, in some cases, it will be found advantageous to pass the straw between rollers, or to break it roughly or partially, before subjecting it to the process above described, for the purpose of facilitating the action of the chemical agents upon it.

By the aforesaid method, I am enabled to remove from the straw certain matters which water alone cannot discharge. The fibre thus prepared is also freer to heckle, and the straw more easy to scutch, than fibre and straw treated in the ordinary way. Much time and much material are also saved: while the noxious exhalations attendant upon the water-rotting system are wholly prevented.

If the fibre is required to be short, so that it may be felted or carded, and adapted for spinning on cotton, silk, wool, worsted, or tow, spinning machinery, either alone or in combination with cotton, wool, hair, fur, silk, or shoddy, I take the fibre, after treating it by the processes just described, and divide it in proper lengths by some suitable instrument or machine. I then transfer the straw or fibre to a bath containing a strong solution of bicarbonate, or even carbonate of soda, or any other similar compound; but the first two of these are to be preferred as most abounding in carbonic acid. In this bath I allow it to remain for about three or four hours, during which time the fibre becomes well saturated with the salt. I then immerse the material impregnated with the solution of the carbonates before named, for about a couple of hours, in water acidulated by sulphuric acid, of about the strength of

one part of acid to two hundred parts of water. Or instead thereof, I expose the saturated materials while wet to the action of burning sulphur in a suitable chamber or stove.

In this operation it appears that a certain portion of gas being developed in the fibrous tubes, splits and divides them by its expansive power into filaments, having the character and appearance of fine cotton wool; in which state they may be dyed and manufactured like cotton or wool.

The same means of effecting the splitting of the fibre may of course be employed in the preparation of long fibre, and I do not limit myself to its use for the preparation of short fibre alone, but when the fibre is of its original length, the solution employed takes a longer time to penetrate the interior.

The decomposition of the bicarbonate of soda or other suitable compound, with which the fibre is saturated, may be also affected by means of electric agency, when a like evolution of gas and splitting up of the fibre will take place.

After the fibre has been subjected to the splitting process, it must be carefully washed to remove all soluble matters, and then dried.

The splitting process may be applied to the plant either in the straw (the wood of which is to be afterwards removed by proper means and machinery), or in the state of long fibre, whether prepared by my before described process, or by any of the usual and known processes.

Thirdly. My invention, in so far as it relates to improvements in yarns and felts, consists in composing the same of the following new combinations of materials. I manufacture a yarn which I call "flax-cotton yarn," composed partly of flax fibre, prepared and cut into short lengths, as aforesaid, and partly of cotton, varying the proportion at pleasure. This yarn is much stronger than yarn composed of cotton alone, and also much whiter and more glossy, while it is equally capable of being spun in the ordinary cotton-spinning machinery.

I also manufacture yarns, composed in like manner, partly of hemp fibre, or of jute, or of phormium tenax, or of other like vegetable fibre (China grass excepted), prepared and cut into short lengths, as aforesaid, and partly of cotton, which yarns each possess the same properties (more or less) as the flax-cotton yarn.

I manufacture also a yarn, which I call "flax-wool yarn," composed partly of flax prepared and cut into short lengths, as aforesaid, or of any other like vegetable fibre (cotton and China grass excepted); and partly of wool, or of that description of it called "shoddy," or partly of the fur or hair, or partly of any two or more of the said materials; which yarn is stronger than any yarn composed of wool alone. Some wools aslo, which are too short to be spun by themselves, may, by being mixed with flax-fibre, cut into short lengths, form a material very suitable for spinning.

I manufacture also a yarn, composed partly of flax, or other like vegetable fibre (China grass excepted), prepared and cut into short lengths, as aforesaid, and partly of waste silk; that is, silk of the short lengths in which it exists before reeling, or silk rags cut into short lengths and carded.

Lastly. Flax felts, of a fineness and softness equal to the best felts, composed wholly of wool, and superior to them in point of durability, are also produced by a mixture of flax-fibre, prepared and cut into short lengths, as aforesaid, with wool, fur, hair, or any other feltable material.

And I declare that what I claim as secured to me by the said letters patent, is as follows:

First. I claim the method of bleaching by double decomposition, before described, whereby the various bleaching agents and compounds used may be recovered and economized.

Second. I claim the method of bleaching by the combined action of chlorides, or carbonates, or chromates, or any other bleaching agent, with fumes of sulphur, as before described.

Third. I claim the preparing of flax and hemp, and of all vegetable fibre capable of being spun or felted, from whatever description of plants obtainable, by steeping the plant from which the fibre is derived, while in the state of straw, stem, leaf, or fibre, first in a solution of caustic, soda, or other solution of like properties, and then in a bath of dilute sulphuric or other acid, as before exemplified and described.

Fourth. I claim the preparing of the said vegetable fibre for spinning in cotton and silk machinery, and for being combined with cotton, wool, raw silk, or other materials of sort staple, by firstly steeping the same in a solution of caustic, soda, or other solution of like properties. Secondly, steeping them in a bath of dilute sulphuric, or other suitable acid, or exposing them to the fumes of sulphur. Thirdly, saturating them with a solution of bicarbonate of soda, or any other like agent, and then decomposing such salt, however such decomposition may be effected; and, Fourthly, cutting them up into short lengths, all as before exemplified and described.

Fifth. I claim the employment generally in the preparation of flax, hemp, and other sorts of vegetable fibre, of the mode of splitting by gaseous expansion, as before described, whether the fibre is long or short, and whatever may be the purpose to which the same is to be applied.

Sixth. I claim the manufacture of yarns and felts from a combination of flax, or like vegetable fibre (China grass excepted), prepared and mixed, as aforesaid, with cotton wool, "shoddy," silk waste, fur, and hair, all or any of them as before exemplified and described.

ARTICLE III.

INFLUENCE OF COMMERCE UPON LANGUAGE.

Effects of Commerce upon Language—Commerce influencing Language—Copiousness caused by extensive Commerce—Advantages of a copious Language—The American—English—Greek—and Roman Languages—Deficiency in the American and English Languages—Probable progress and present position of the American Language.

(From the Merchants' Magazine.)

The effects of the Commerce, or of the commercial action of a nation upon its language, are very significant. National language, by the aid of Commerce, its attendants and consequents, becomes copious, expressive and influential: and, in proportion to the extension and increase of Commerce, the arts and sciences, language variegates and expands. A narrow and exclusive community, having intercourse by commercial traffic or otherwise, with but few other communities, must necessarily have occasion for fewer words, and a less number of ideas than those whose commercial privileges are more numerous,—and whose business intercourse and capacities are more extensive. In such limited communities, we see the condition of nations or tribes, in respect to language, like the North American Aborigines, whose language, though energetic, was tôo sparse or barren to serve the purposes of familiar conversation;—and in order to be understood and felt, it required the aid of strong and animated gesticulation. We plainly observe then, that the wider and farther a nation's Commerce, with its concomitants, extends, the more excursive and comprehensive will be its lingual capacities. Words and ideas become matters of international exchange or acquisition; and Commerce the bridge over which they travel from country to country.

A language acquires copiousness and richness by the addition of terms and phrases "borrowed," and introduced, from the languages of other countries. Every new commodity, art and object, every new idea or invention, arising from conjunctive national minds, is followed by a name or meet expression. And each "winged word" is brought to the store-house of national language. A cultivated, copious language, derived from, or belonging to, any commercial people of the present time, will exhibit, in its constituent elements, many words directly introduced or derived from ancient and modern nations; and due attention to the sources of these words, will develop their nativity in the vernaculars of various nations of the Globe. A glance, for example, at the ingredients of our own language, exhibits the words, cherub, corban, eden, leviathan, sabbath, satan, seraph, &c., to be from the *Hebrew;* alphabet, anthem, chronometer, gymnasium, hydraulic, orthography, rhetoric, from the *Greek;* animal, artisan, adage, coinage,

epitome, honor, litigant, quadrant, valor, from the *Latin*. We also find antique, boquet, clique, epaulet, gaiety, levee, suite, tirade, tour, unique, &c., to be derived or borrowed from the *French;* allegro, casement, fresco, galvanism, from the *Italian;* alcove, anchovy, castanet, embargo, tornado, from the *Spanish;* alchemy, alcohol, almanac, amber, crimson, syrup, zenith, from the *Arabic;* bazaar, pagoda, zest, from the *Persian;* and calumet, canoe, maize, potato, tobacco, wigwam, from the *North American Aborigines*. Reference, without aspiring to universal origin, it may be seen, is made to two dozen languages by our American Lexicographer.

The influence of a language that is preeminently copious, necessarily becomes extensively apparent to the world. It is a supersusceptible language capable of unfolding the most variable ideas, and of molding the understanding in the greatest variety of forms. The fabric of such a language, looms above the others around it; and becomes supremely conspicuous in phase and effulgent character. The elements and attachments of the various sciences, find the most suitable riches within its structure: and, possessing the most capacious sphere of mind, it becomes the resort for the exercise of profound and versatile learning. Its superlative copiousness, distinctively its own, enables it to illustrate the most narrowly discriminating ideas with the precision exact truth requires: while all the colors, shades and tints of thought can be displayed by its many apposite and variously adapted words. The narrow line of an intricate current of labyrinthian actions, can be traced with words exactly adapted to descriptions; and every minute object, deed and motive, may meet its precise designation, accurate expression, and clear comprehension. Diversities of occasion and condition, are suited with corresponding variations in expression; and such terms as are not too high nor too low, too strong nor too weak—and such as are obvious and not vulgar, accurate yet not pedantic, elegant yet not artificial, can be found within the lingual service. A grand field for racy and original literature, is here: genius finds entire correspondence between sentiment and language; the arrows of the mind reach their exact mark; and thought has its unmistaken Daguerreotype. We discover no inadequacy of language to atttend and convey emotion; and "no quailing under a powerful conception." Such a language enures to the country having the most extensive Commerce.

The history of the American language, (so we may call the language which we use,) if traced with that minuteness necessary to its clear and elaborate presentation, would doubtless exhibit plainly the direct effects of our own Commerce in variegating and enlarging its domain. So, also, reference to the "mother tongue," and its history, will exhibit the potent effects of Great Britain's Commerce on its language—which, in its progress, nourished by commercial influences, speaks entertainingly and instructively;

making it appear—as it has been and still is—a highly influential language on the Globe. Spreading over the British Islands and pushing out several varieties of Celtic. It was subsequently conducted to the American Continent and islands, where it became the leading form of speech, everywhere overwhelming the native and transplanted tongues. "By similar processes of colonization, it has been planted in the great Asiatic Peninsula, (India,) and its islands in Australia, Van Dieman's Land, New Zealand, the southern extremity, and various parts of the western coast of Africa, besides other possessions of Britain in different parts of the world." "We Britons," says Harris, "in our time have been remarkable borrowers, as our *multiform* language may sufficiently show. Our terms in *polite literature* prove that this came from *Greece;* our terms in *music* and *painting*, that these came from *Italy;* our phrases in *cookery* and *war*, that we learnt these from the *French;* and our phrases in *Navigation* that we were taught by the *Flemings* and *Low Dutch*. These many and very different sources of our language may be the cause why it so different in *regularity* and *analogy*.—Yet we have this advantage to compensate the defect, that what we want in *elegance* we gain in *copiousness*, in which last respect few languages will be found superior to our own."

In a retrospective view we will discover similar evidences flowing from the experience of other commercial nations. Israel after their establishment in Canaan, and under the administration of Samuel, and also during the reigns of David and Solomon, we learn, were greatly exalted above other nations. Under David we discover them to have been great and wealthy; and under Solomon eminently conspicuous in the arts and sciences. In the time of the latter, distinguished and learned foreigners resorted to Jerusalem, and the number of strangers was large in the land of Israel. Solomon himself excelled all his cotemporaries in philosophical disquisitions and poetical compositions. He was familiar with elegant architecture, sculpture, music, gardening and agriculture. His temple was a monument of his genius and taste, and of the improvement and grandeur to which the arts attained. He built a number of cities, engaged extensively in commerce, and became preeminent in riches and wisdom.—[*I Kings*, ix: 10.] The history of his reign, as recorded in the sacred writings, makes it evident that society had reached a commanding state of civilization; and the people had become an object of attention to other nations and the model which they imitated. Their language was correspondingly influential. "Those," says a popular writer, "who settled near the sea-shore, and were compelled into commerce and intercourse with strangers, gave to Greece her marvellous accomplishments in arts and letters—the flowers of the ancient world."

"The Grecian commonwealth, while they maintained their liberty, were the most heroic confederacy that ever existed. They were

the politest, the bravest, and the wisest of men. In the short space of little more than a century, they became such statesmen, wariors, orators, historians, physicians, poets, critics, painters, sculptors, architects, and (last of all) philosophers, that one can hardly help considering that GOLDEN PERIOD as a providential event in honor of human nature, to show to what perfection the species might ascend. NOW THE LANGUAGE of these Greeks, was truly like themselves; 'twas conformable to their transcendent and universal genius. Where matter so abounded, words followed of course, and those exquisite in every kind as the ideas for which they stood. And hence, it followed, there was not a subject to be found which could not, with propriety, be expressed in *Greek*."

Rome too, the "Imperial Mistress of the World," occupied a lofty position in respect to copious and influential language, the evidences of which are, at this remote period, very apparent and convincing. It was truly "*omnis doctrinæ ac scientias thesaurus altissimus.*" The Roman tongue is still used in every branch and department of profound intellectual information; for in it were imbibed all the elements and requisites of elevated and thorough learning in art and science. Originally a dialect of the Greek, afterwards corrupted and mingled with other languages, it gradually rolled onward through the regions of mind till it became an energetic, concise and flowing language, comprising a flood of learning by which for centuries the literary world has been enlightened. Eagle like it reached the loftiest regions of light; and it has continued for centuries to illuminate many institutions of elevated learning in various countries. The English language, with our own and others, continues to possess very many of its ingredient features. It prevails extensively here among medical and legal terms; and gives mottoes to our States and Union. With munition and vigor, never surpassed, this language has entrenched itself in the durable essence of unchangeable wisdom; while time, with its ceaseless revulsions and changes, urges by it with singularly slight ravages. It is doubtless well for the durability and purity of the record that it has, like the Hebrew and Greek, so long ceased to be a familiar tongue. This language was, by slow and almost imperceptible degrees, deteriorated and finally lost, as a spoken language, by the overthrow of the empire and the subjugation of Italy to the Northern Barbarians. It, however, continued for a long period to be spoken with considerable correctness; and was in fact for several centuries the reigning language in the Republic of Letters. "It is of itself one of the finest models of language in all antiquity. It has exerted more influence over the intellect, moral character and destiny of Europe, for twenty centuries, than any other language."

Commercial enterprises, with their direct and indirect influences, will undoubtedly prevail in the future upon the language of Confederated America in degrees commensurate with their extent.

While our Republic is advancing to the pinnacle of its grandeur, a language will be forming which will be, as a necessary consequence, distinctly and peculiarly its own. This will be, it is reasonable to presume, a prominent feature among its other characteristics; and meriting the title to which our nationality directs. "The name of *American*" says Washington in his Farewell Address, "which belongs to you in your national capacity, must always exalt the just pride of patriotism more than any appellation derived from local discriminations." Our language presents evidences of progressively distinctive and capacious features, enlivened by the influences of liberty, and delineating the novel circumstances of the nation. We have left the beaten path of the monarchist; and, in regions thousands of miles off, are forming and maturing a concentrated and energetic language for the use of ourselves as a people, whose position, as a nation, seems destined to be preeminent; and whose language promises for the Future, what Rome's has done for the Past. Powerful efforts are facilitating uniformity in language, making our Republic more continuously conspicuous in this respect without enactments directing it, than other Governments have been with them. Frequent, easy, free and speedy communications and active business intercourses favor this uniformity; while animated progress in the universal educational principle, under the inspiring genius of our matchless institutions, is tending to the same result.

Difference between the language of America and the standard of Great Britain assume a progressive aspect. Similarity seems to be in a condition of secession. The variable commercial influences, a wide variation in government, manners and habits, and other causes evidently make these differences. Whenever men, having one language, separate into different societies, under different governments, innumerable variations readily spring up to diversify the language, and effect distinctive vernaculars. The growing distinctions between the American language and that of Great Britain are clearly discerned upon a superficial view, in the written languages; and may be very readily attributed, in part, to distinctive features in national character. The British are less ready, active and quick than the Americans. (*They* style these features restlessness.) Our military and naval contests with the British and various rival expeditions, inventions and enterprises, all evince a predominant readiness, activity and energetic quickness on the part of the Americans; and they may be distinctly discerned in our language. In commercial correspondence the Americans are conspicuous for their abbreviated and sententious language and rapid terseness; and among our people generally, the taste for concise expression and a desire to abandon unnecessary circumlocution, are observable. Of the improvements which have been shown in the "mother tongue," the most popular and numerous are those which promote analogical uniformity and afford celerity and brevity to the language. We leave the monarchist

with his extended and circuitous orthography to express arithmetic, atlantic, cubic, music, &c., each with a final *k*, (as arithmetick, &c.): ax with a final *e*; hight and highth each with an *e*, (as height &c.); mold, molt, color, harbor, honor, odor, vigor, rigor, &c., each with a *u*, (as mould, colour, &c.); appareled, canceled, counselor, traveler, with two *l's*; plow with *u-g-h* instead of *w;* while we drop or exchange these letters, or substitute one in the place of several; and thus in many other words, as in these, unnecessary and merely cumbrous letters are omitted or remedied—in all of which is evinced an American distinctive feature. We love quickness.

Aware that some words are evidently governed in their original orthography by sound and expression, illustrating the idea or ideas to be conveyed (as, for instance, *p-h—t-h—i-s—i-c;*) interference with such would have been injudicious. Many words, however, in former ordinary use, had no similar pleas for circuitous orthography, yet possessed such palpably mute or dead letters as to render the application of the pruning knife—in clipping them of their superfluities—highly advantageous.

Our Lexicographer has exercised the privilege discreetly: and a similar use on exotic or imported words, from time to time, would probably prove of equal discretion and service. For instance, no good reason interposes against dropping the dead *t* in the words *depot*, (depo,) *entrepot*, *eclat*, *haricot*, introduced from the *French*, and now in full American use.

Besides the differences in the written language and orthography already alluded to, prominent differences in orthoepy also prevail —and are preferred and adopted here against English usage: while our colloquial language, with that of elaborate discourse, is suited to the usance of a less phlegmatic and more active, ready and energetic people than those of England.

Advancing commercial influences, remote intercourses, extended enterprises, continued immigration. progressing invention and science, will, doubtless, all be fruitful in their effects upon our country's future language. Like other living languages, ours must be progressive. "The growth of language cannot be repressed any more than the genial activity of the human soul." Especially in our own country is this so—in "this wilderness of free minds," where new thoughts and commercial results are constantly awakening new and novel modes of expression. Forthcoming contributions, in their gradual course, will evidently flood the vocabulary and break through the restraints of earlier and more limited circumstances; and a new and more extensive regulation will appear to correspond with the widened domain of the "Empire's vernacular." Wherever the star spangled banner waves, over sea and land, the American language will be spoken, and the "mind's eye" of America will be observant—many words and phrases will be coined and used here to which the languages of the Old World will

not apply. The extent of our enlightened country's influence will reach every field of intellect; and our distinctive language will be entrenched in the minds of the nation throughout the length and breadth of the land. Picturesque America will have her poets, orators, authors, artists and philosophers. She will be no longer considered as "a province of England in the matters of art and science." Original and powerful efforts in general literature, philosophy and the fine arts, will beam forth; and a democracy will prove itself, not inimical to intellectual advancement, but favorable to independence of thought and action; and fitting and invigorating to the operations of the mind. Beauties of diction and excellencies of expression, with exquisite combinations of thought, will appear—forming the idiomatic characteristics of our vernacular—and the standard literature of our confederacy. Millions of the rising generation will continue to have our stores of science and erudition before them, which will exhibit a lingual vocabulary, in written and vocal use, not surpassed by any country on the globe. The Eagle of America, borne by the inspiring genius of a lofty nature, kindles "her endazzled eyes at the full mid-day beam" far above where the Lion of the Old World roves; and the more phlegmatic "mother country" may be outstripped in the march of mind, as in that of Commerce, by the more animated sons of Columbia.

No "living language" is ever destitute of a perceptible mutation or gradual adaptation. Such a language is tractable, and in its attachments and formations accommodates itself to the conditions and circumstances of a community. Language varies to suit occupations, improvements and science and arts of life; and differences of climate and classes of objects. Some words become obsolete; some change in signification; and others, that are exotic or new, are introduced into the language. As Commerce, Learning, and the arts and sciences advance in a country and the magnificent phazes of enlightened refinement, genius and invention break forth to the people's gaze—a resort is had to corresponding words, and expressive modes of speech, in unison with the surrounding and influencing circumstances.

Doubts can not dissipate the fact that a silent and irresistible course of rivalry prevails between Great Britain and the United States in regard to a supremacy in the matter of language. Superior commercial powers, activity and wealth, in the one or the other, will enforce decisive influence in the eventual mastery. Unsurpassed energy, rapidity of action, fertility of invention, vigor and scope of mind and enterprise, render it not otherwise than apparent that the lingual powers, with the commercial powers of our Republic, will exert unprecedented influence upon the world. Kept active and concentrated by the electric telegraph, an influential press and general educational institutions, and other channels, within certain limits, we see the illuminating influences of our ver-

nacular piercing and circulating in the wilds of the Continent, subduing the languages of the aborigines and others introduced around them; sweeping away the Spanish and other tongues in the California regions; chosen by the Canadian schools in preference to the vernacular of Great Britain; settling in Africa, and becoming the language of the intelligent descendants of our manumitted slaves; and borne by every American missionary and enterprising expedition among the Heathen, and other countries of the globe: while it is at home entrenching itself in the fundamental truths of every science—and arming and equipping itself with the most inspiring emanations of genius within the intellectual scope of mankind. A. H. R.

Article IV.

ALLIANCE OF CHEMISTRY WITH PHYSIOLOGY.

DIVISION OF FOOD INTO NOURISHMENT, AND MATERIALS FOR COMBUSTION. EFFECTS OF ATMOSPHERIC OXYGEN. BALANCE OF CARBON AND OXYGEN.*

One of the most remarkable effects of the recent progress of science is the alliance of chemistry with physiology, by which a new and unexpected light has been thrown upon the vital processes of plants and animals. We have now no longer any difficulty in understanding the different actions of aliments, poisons and remedial agents—we have a clear conception of the causes of hunger, of the exact nature of death; and we are not, as formerly, obliged to content ourselves with a mere description of their symptoms. It is now ascertained with positive certainty, that all the substances which constitute the food of man must be divided into two great classes, one of which serves for the nutrition and reproduction of the animal body, while the other ministers to quite different purposes. Thus starch, gum, sugar, beer, wine, spirits, &c., furnish no element capable of entering into the composition of blood, muscular fibre, or any part which is the seat of the vital principle. It must surely be universally interesting to trace the great change our views have undergone upon these subjects, as well as to become acquainted with the researches from which our present knowledge is derived.

The primary conditions of the maintenance of animal life, are

* The following article is copied from the "Familiar Letters" of Professor Liebig on chemistry. These letters have been before the public for several years, but as few, except the learned, read such works, we have concluded that his theory respecting the alliance of chemistry with physiology, would be found both interesting and profitable to the general reader. Editors.

a constant supply of certain matters, animal food, and of oxygen, in the shape of atmospheric air. During every moment of life, oxygen is absorbed from the atmosphere in the organs of respiration, and the act of breathing cannot cease while life continues.

The observations of physiologists have demonstrated that the body of an adult man supplied abundantly with food neither increases nor diminishes in weight during twenty-four hours, and yet the quantity of oxygen absorbed into his system, in that period, is very considerable. According to the experiments of Lavoisier, an adult man takes into his system from the atmosphere, in one year, no less than 746 pounds weight of oxygen; the calculations of Menzies make the quantity amount even to 837 pounds; but we find his weight at the end of the year either exactly the same, or differing one way or other by at most a few pounds. What, it may be asked, has become of the enormous amount of oxygen thus introduced into the human system in the course of one year? We can answer this question satisfactorily. No part of the oxygen remains in the body, but is given out again, combined with carbon and hydrogen. The carbon and hydrogen of certain parts of the animal body combine with the oxygen introduced through the lungs and skin, and pass off in the forms of carbonic acid and vapor of water. At every expiration and every moment of life, a certain amount of its elements are separated from the animal organism, having entered into combination with the oxygen of the atmosphere.

In order to obtain a basis for an approximate calculation, we may assume, with Lavoisier and Seguin, that an adult man absorbs into his system $32\frac{1}{2}$ ounces of oxygen daily—that is, 46,037 cubic inches = 15,661 grains, French weight; and further, that the weight of the whole mass of his blood is 24 pounds, of which 80 per cent. is water. Now, from the known composition of the blood, we know that in order to convert its whole amount of carbon and hydrogen into carbonic acid and water 64.102 grains of oxygen are required. This quantity will be taken into the system in four days and five hours. Whether the oxygen enters into combination directly with the elements of the blood, or with the carbon and hydrogen of other parts of the body, it follows inevitably—the weight of the body remaining unchanged and in a normal condition—that as much of these elements as will suffice to supply 24 pounds of blood, must be taken into the system in four days and five hours; and this necessary amount is furnished by the food.

We have not, however, remained satisfied with mere approximation: we have determined accurately, in certain cases, the quantity of carbon taken daily in the food, and of that which passes out of the body in the fæces and urine combined—that is, uncombined with oxygen; and from these investigations it appears that an adult man, taking moderate exercise, consumes $13\frac{9}{10}$ ounces of carbon, which pass off through the skin and lungs as carbonic acid gas.*

* The account is deduced from observations made upon the average daily con-

It requires 37 ounces of oxygen to convert $13\frac{3}{10}$ of carbon into carbonic acid. Again: according to the analysis of Boussingault (Annales de Chim. et de Phys., lxx. i., p. 136) a horse consumes $79\frac{1}{10}$ ounces of carbon in twenty-four hours, a milch cow $70\frac{3}{4}$ ounces; so that the horse requires 13 pounds $3\frac{1}{2}$ ounces, and the cow 11 pounds $10\frac{3}{4}$ ounces of oxygen†

As no part of the oxygen taken into the system of an animal is given off in any other form than combined with carbon or hydrogen, and as in a normal condition, or state of health, the carbon or hydrogen so given off are replaced by these elements in the food, it is evident the amount of nourishment required by an animal for its support must be in a direct ratio with the oxygen taken into its system. Two animals which in equal times take up by means of the lungs and skin unequal quantities of oxygen, consume an amount of food unequal in the same ratio. The consumption of oxygen in a given time may be expressed by the number of respirations; it is therefore obvious, that in the same animal the quantity of nourishment required must vary with the force and number of respirations. A child breathes quicker than an adult, and consequently requires food more frequently and proportionably in larger quantity, and bears hunger less easily. A bird deprived of food dies on the third day, while a serpent, confined under a bell, respires so slowly that the quantity of carbonic acid generated in an hour can scarcely be observed, and it will live three months, or longer, without food. The number of respirations is fewer in a state of rest than during labor or exercise; the quantity of food necessary in both cases must be in the same ratio. An excess of food, a want of a due amount of respired oxygen, or of exercise, as also great exercise (which obliges us to take an increased supply of food,) together with weak organs of digestion, are incompatible with health.

But the quantity of oxygen received by an animal through the lungs not only depends upon the number of respirations, but also upon the temperature of the respired air. The size of the thorax of an animal is unchangeable; we may therefore regard the volume of air which enters at every inspiration as uniform. But its weight, and consequently the amount of oxygen it contains, is not constant. Air is expanded by heat, and contracted by cold—an equal volume of hot and cold air contains, therefore, an unequal amount

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sumption of about 30 soldiers in barracks. The food of these men, consisting of meat, bread, potatoes, lentils, peas, beans, butter, salt, pepper, &c., was accurately weighed during a month, and each article subjected to ultimate analysis. Of the quantity of food, beer, and spirits, taken by the men when out of barracks, we have a close approximation from the report of the sergeant: and from the weight and analysis of the fæces and urine, it appears that the carbon which passes off through these channels may be considered equivalent to the amount taken in that portion of the food, and of sour-crout, which was not included in the estimate.

† 16 ounces $=\frac{1}{2}$ kilogramme.

of oxygen. In summer, atmospheric air contains water in the form of vapor; it is nearly deprived of it in winter. The volume of oxygen in the same volume of air is smaller in summer than in winter. In summer and winter, at the pole and at the equator, we inspire an equal volume of air; the cold air is warmed during respiration and acquires the temperature of the body. In order, therefore, to introduce into the lungs a given quantity of oxygen, less expenditure of force is necessary in winter than in summer, and for the same expenditure of force more oxygen is inspired in winter. It is also obvious that in an equal number of respirations we consume more oxygen at the level of the sea than on a mountain.

The oxygen taken into the system is given out again in the same form, both in summer and winter; we expire more carbon at a low than a high temperature, and require more or less carbon in our food in the same proportion; and consequently more is respired in Sweden than in Sicily, and in our own country an eigth more in winter than in summer. Even if an equal weight of food is consumed in hot and cold climates, Infinite Wisdom has ordained that very unequal proportions of carbon shall be taken in it. The food prepared for the inhabitants of southern climes does not contain in a fresh state more than 12 per cent. of carbon, while the blubber and train oil which feed the inhabitants of polar regions contain 66 to 80 per cent. of that element.

From the same cause it is comparatively easy to be temperate in warm climates, or to bear hunger for a long time under the equator; but cold and hunger united very soon produce exhaustion.

The oxygen of the atmosphere received into the blood in the lungs, and circulated throughout every part ef the animal body, acting upon the elements of the food, is the source of *animal heat.*

ANIMAL HEAT, ITS LAWS AND INFLUENCE ON THE ANIMAL FUNCTIONS. LOSS AND SUPPLY. INFLUENCE OF CLIMATE. FUEL OF ANIMAL HEAT. AGENCY OF OXYGEN IN DISEASE. RESPIRATION.

The source of animal heat, its laws, and the influence it exerts upon the functions of the animal body, constitute a curious and highly interesting subject, to which I would now direct your attention.

All living creatures, whose existence depends upon the absorbtion of oxygen, possess within themselves a source of heat, independent of surrounding objects.

This general truth applies to all animals, and extends to the seed of plants in the act of germination, to flower-buds when developing, and fruits during their maturation.

In the animal body, heat is produced only in those parts to which arterial blood, and with it the oxygen absorbed in respiration, is

conveyed. Hair, wool, and feathers, receive no arterial blood, and therefore in them no heat is developed. The combination of a combustible substance with oxygen is, under all circumstances, the only source of animal heat. In whatever way carbon may combine with oxygen, the act of combination is accompanied by the disengagement of heat. It is indifferent whether this combination takes place rapidly or slowly, at a high or at a low temperature; the amount of heat liberated is a constant quantity.

The carbon of the food being converted into carbonic acid within the body, must give out exactly as much heat as if it had been directly burnt in oxygen gas or in common air; the only difference is, the production of the heat is diffused over unequal times. In oxygen gas the combustion of carbon is rapid, and the heat intense; in atmospheric air it burns slower and for a longer time, the temperature being lower; in the animal body the combination is still more gradual, and the heat is lower in proportion.

It is obvious that the amount of heat liberated must increase or diminish with the quantity of the oxygen introduced in equal times by respiration. Those animals therefore which respire frequently, and consequently consume much oxygen, possess a higher temperature than others, which, with a body of equal size to be heated, take into the system less oxygen. The temperature of a child (102°) is higher than that of an adult (99.5°.) That of birds (104° to 105.4°) is higher than that of quadrupeds (98.5° to 100.4°) or than that of fishes or amphibia, whose proper temperature is from 2.7° to 3.6° higher than that of the medium in which they live. All animals, strictly speaking, are warm-blooded; but in those only which possess lungs is the temperature of the body quite independent of the surrounding medium.

The most trustworthy observations prove that in all climates, in the temperate zones, as well as at the equator or the poles, the temperature of the body in man, and in what are commonly called warm-blooded animals, is invariably the same; yet how different are the circumstances under which they live!

The animal body is a heated mass, which bears the same relation to surrounding objects as any other heated mass. It receives heat when the surrounding objects are hotter, it loses heat when they are colder than itself.

We know that the rapidity of cooling increases with the difference between the temperature of the heated body and that of the surrounding medium; that is, the colder the surrounding medium the shorter the time required for the cooling of the heated body.

How unequal, then, must be the loss of heat in a man at Palermo, where the external temperature is nearly equal to that of the body, and in the polar regions where the external temperature is from 70 to 90 degrees lower!

Yet, notwithstanding this extremely unequal loss of heat, experience has shown, that the blood of the inhabitants of the arctic

circle has a temperature as high as that of the native of the south, who lives in so different a medium.

This fact, when its true significance is perceived, proves that the heat given off to the surrounding medium is restored within the body with great rapidity. This compensation must consequently take place more rapidly in winter than in summer, at the pole than at the equator.

Now, in different climates the quantity of oxygen introduced into the system by respiration, as has been already shown, varies according to the temperature of the external air; the quantity of inspired oxygen increases with the loss of heat by external cooling, and the quantity of carbon or hydrogen necessary to combine with this oxygen must be increased in the same ratio.

It is evident that the supply of the heat lost by cooling is effected by the mutual action of the elements of the food and the inspired oxygen, which combine together. To make use of a familiar, but not on that account less just illustration, the animal body acts, in this respect, as a furnace, which we supply with fuel. It signifies nothing what intermediate forms food may assume, what changes it may undergo in the body, the last change is uniformly the conversion of its carbon into carbonic acid, and of its hydrogen into water. The unassimilated nitrogen of the food, along with the unburned or unoxidized carbon, is expelled in the urine or in the solid excrements. In order to keep up in the furnace a constant temperature, we must vary the supply of fuel according to the external temperature, that is, according to the supply of oxygen.

In the animal body the food is the fuel; with a proper supply of oxygen we obtain the heat given out during its oxidation or combustion. In winter, when we take exercise in a cold atmosphere, and when consequently the amount of inspired oxygen increases, the necessity for food containing carbon and hydrogen increases in the same ratio; and by gratifying the appetite thus excited, we obtain the most efficient protection against the most piercing cold. A starving man is soon frozen to death. The animals of prey in the arctic regions, as every one knows, far exceed in voracity those of the torrid zone.

In cold and temperate climates, the air, which incessantly strives to consume the body, urges man to laborious efforts in order to furnish the means of resistance to its action, while, in hot climates, the necessity of labor to provide food is far less urgent.

Our clothing is merely an equivalent for a certain amount of food. The more warmly we are clothed the less urgent becomes the appetite for food, because the loss of heat by cooling, and consequently the amount of heat to be supplied by the food, is diminished.

If we were to go naked, like certain savage tribes, or if in hunting or fishing we were exposed to the same degree of cold as the

Samoyedes, we should be able with ease to consume 10 pounds of flesh, and perhaps a dozen of tallow candles into the bargain, daily, as warmly clad travellers have related with astonishment of these people. We should then also be able to take the same quantity of brandy or train oil without bad effects, because the carbon and hydrogen of these substances would only suffice to keep up the equilibrium between the external temperature and that of our bodies.

According to the preceding expositions, the quantity of food is regulated by the number of respirations, by the temperature of the air, and by the amount of heat given off to the surrounding medium.

No isolated fact, apparently opposed to this statement, can affect the truth of this natural law. Without temporary or permanent injury to health, the Neapolitan can not take more carbon and hydrogen in the shape of food than he expires as carbonic acid and water; and the Esquimaux can not expire more carbon and hydrogen than he takes into the system as food, unless in a state of disease or of starvation. Let us examine these states a little more closely.

The Englishman in Jamaica perceives with regret the disappearance of his appetite, previously a source of frequently returning enjoyment; and he succeeds by the use of cayenne pepper and the most powerful stimulants in enabling himself to take as much food as he was accustomed to eat at home. But the whole of the carbon thus introduced into the system is not consumed; the temperature of the air is too high, and the oppressive heat does not allow him to increase the number of respirations by active exercise, and thus to proportion the waste to the amount of food taken; disease of some kind, therefore, ensues.

On the other hand, England sends her sick to southern regions, where the amount of the oxygen inspired is diminished in a very large proportion. Those whose diseased digestive organs have in a greater or less degree lost the power of bringing the food into the state best adapted for circulation, and therefore are less able to resist the oxidizing influence of the atmosphere of their native climate, obtain a great improvement in health. The diseased organs of digestion have power to place the diminished amount of food in equilibrium with the inspired oxygen, in the mild climate; while in a colder region the organs of respiration themselves would have been consumed in furnishing the necessary resistance to the action of the atmospheric oxygen.

In our climate, hepatic diseases, or those arising from excess of carbon, prevail in summer; in winter, pulmonary diseases, or those arising from excess of oxygen, are more frequent.

The cooling of the body, by whatever cause it may be produced, increases the amount of food necessary. The mere exposure to the open air, in a carriage or on the deck of a ship, by increasing radiation and vaporization, increases the loss of heat, and compels

us to eat more than usual. The same is true of those who are accustomed to drink large quantities of cold water, which is given off at the temperature of the body, 98.5 degrees. It increases the appetite, and persons of weak constitution find it necessary, by continued exercise, to supply to the system the oxygen required to restore the heat abstracted by the cold water. Loud and long continued speaking, the crying of infants, moist air, all exert a decided and appreciable influence on the amount of food which is taken.

We have assumed that it is especially carbon and hydrogen which, by combining with oxygen, serve to produce animal heat. In fact, observation proves that the hydrogen of the food plays a not less important part than the carbon.

The whole process of respiration appears most clearly developed, when we consider the state of a man, or other animal, totally deprived of food.

The first effect of starvation is the disappearance of fat, and this fat can not be traced either in the urine or in the scanty fæces. Its carbon and hydrogen have been given off through the skin and lungs in the form of oxidized products; it is obvious that they have served to support respiration.

In the case of a starving man, $32\frac{1}{3}$ oz. of oxygen enter the system daily, and are given out again in combination with a part of his body. Currie mentions the case of an individual who was unable to swallow, and whose body lost 100 lbs. in weight during a month; and, according to Martell (Trans. Linn. Soc. vol. xi, p. 411,) a fat pig, overwhelmed in a slip of earth, lived 160 days without food, and was found to have diminished in weight, in that time, more than 120 lbs. The whole history of hybernating animals, and the well-established facts of the periodical accumulation, in various animals, of fat, which, at other periods, entirely disappears, prove that the oxygen, in the respiratory process, consumes, without exception, all such substances as are capable of entering into combination with it. It combines with whatever is presented to it; and the deficiency of hydrogen is the only reason why carbonic acid is the chief product; for, at the temperature of the body, the affinity of hydrogen for oxygen far surpasses that of carbon for the same element.

We know, in fact, that the graminivora expire a volume of carbonic acid equal to that of the oxygen inspired, while the carnivora, the only class of animals whose food contains fat, inspire more oxygen than is equal in volume to the carbonic acid expired. Exact experiments have shown, that in many cases only half the volume of oxygen is expired in the form of carbonic acid. These observations cannot be gainsaid, and are far more convincing than those arbitrary and artificially produced phenomena, sometimes called experiments; experiments which, made as too often they are, without regard to the necessary and natural conditions, pos-

sess no value, and may be entirely dispensed with; especially when, as in the present case, nature affords the opportunity for observation, and when we make a rational use of that oportunity.

In the progress of starvation, however, it is not only the fat which disappears, but also, by degress, all such of the solids as are capable of being dissolved. In the wasted bodies of those who have suffered starvation, the muscles are shrunk and unnaturally soft, and have lost their contractility; all those parts of the body which were capable of entering into the state of motion have served to protect the remainder of the frame from the destructive influence of the atmosphere. Toward the end, the particles of the brain begin to undergo the process of oxidation, and delirium, mania, and death close the scene; that is to say, all resistance to the oxidizing power of the atmospheric oxygen ceases, and the chemical process of eremacausis, or decay, commences, in which every part of the body, the bones excepted, enters into combination with oxygen.

The time which is required to cause death by starvation depends on the amount of fat in the body, on the degree of exercise, as in labor, or exertion of any kind, on the temperature of the air, and finally on the presence or absence of water. Through the skin and lungs there escapes a certain quantity of water, and as the presence of water is essential to the continuance of the vital motions, its dissipation hastens death. Cases have occurred, in which a full supply of water being accessible to the sufferer, death has not occurred till after the lapse of twenty days. In one case, life was sustained in this way for the period of sixty days.

In all chronic diseases death is produced by the same cause, namely, the chemical action of the atmosphere. When those substances are wanting, whose function in the organism is to support the process of respiration; when the diseased organs are incapable of performing their proper function of producing these substances; when they have lost the power of transforming the food into that shape in which it may, by entering into combination with the oxygen of the air, protect the system from its influence, then, the substance of the organs themselves, the fat of the body, the substance of the muscles, the nerves, and the brain, are unavoidably consumed. The true cause of death in these cases is the respiratory process, that is, the action of the atmosphere.

A deficiency of food, and a want of power to convert the food into a part of the organism, are both, equally, a want of resistance; and this is the negative cause of the cessation of the vital process. The flame is extinguished, because the oil is consumed; and it is the oxygen of the air which has consumed it.

In many diseases substances are produced which are incapable of assimilation. By the mere deprivation of food, these substances are removed from the body without leaving a trace behind; their elements have entered into combination with the oxygen of the air.

From the first moment that the function of the lungs or of the skin is interrupted or disturbed, compounds, rich in carbon, appear in the urine. which acquires a brown color. Over the whole surface of the body oxygen is absorbed, and combines with all the substances which offer no resistance to it. In those parts of the body where the access of oxygen is impeded; for example, in the arm-pits, or in the soles of the feet, peculiar compounds are given out, recognizable by their appearance, or by their odor. These compounds contain much carbon.

Respiration is the falling weight—the bent spring, which keeps the clock in motion; the inspirations and expirations are the strokes of the pendulum which regulate it. In our ordinary time-pieces, we know with mathematical accuracy the effect produced on their rate of going, by changes in the length of the pendulum, or in the external temperature. Few, however, have a clear conception of the influence of air and temperature on the health of the human body; and yet the research into the conditions necessary to keep it in the normal state, is not more difficult than in the case of a clock.

ARTICLE V.

TOWNS AND STATISTICS OF MINNESOTA.

To those accustomed to the Northern winters, there is perhaps no part of the continent possessing greater attractions than Minnesota; nor have we known a people who seemed so much delighted with their country, or more hopeful of its future prosperity than those residing in the vicinity of the Falls of St. Anthony.

Saint Paul, a city of some three summers' growth, exhibits social developments which distinguish its citizens from those of every other town we have known in a newly settled country. Amongst their social and literary institutions they can already boast of a historical society whose annals for the year 1850 fill about one hundred and eighty pages.

We have taken a peculiar interest in the settlement of that great region including the sources of the Mississippi and the Red River of the North; and it affords us much pleasure to note the high degree of intelligence, and the individual and social enterprise which distinguish the pioneers of that favored land. Pioneers they are, but how unlike those of the last generation. We delight to recur to the history of the early pioneers of the West; and, in our imagination, we

have traced out many descendants of Nimrod, Hercules, and Jason, who might well claim a niche in the temple of Fame, not less conspicuous than that occupied by their fabled ancestors. It may be truly said: "in those days there were giants in the land:" but, having accomplished the purposes for which they were designed in the advancement of civilization, they have passed away; and, "take them all in all, we shall never look upon their like again." Of these, few, only, found a place in their country's history: yet, tradition and romance shall rescue many noble deeds and humble names from oblivion which have been coldly neglected by the historian.

But as much as we admire the character of the early pioneers, we rejoice that civilization has advanced beyond that state which requires the existence and services of such a race of men. We know they no longer exist, as a distinctive class; but yet, when we look to Wisconsin, Iowa, and especially to Minnesota, we experience a sense of disappointment, and can scarcely realize the fact that the inhabitants of countries so recently occupied by savage tribes, are in the full enjoyment of all the advantages and refinements of civilization.

This advanced state of society in the vicinity of the Falls is not without a meaning. We regard that place as destined to become the resort of a greater number of such as travel for health and amusement, than any other point east of the Rocky mountains; and the intelligence and refinement of the first settlers will not only add to the natural attractions of that particular neighborhood, but give tone and character to the social institutions of the entire country.

The following description of the principal towns of Minnesota is from the "Annals of the Minnesota Historical Society."

EDITOR.

SAINT PAUL.

THE HEAD OF NAVIGATION ON THE UPPER MISSISSIPPI.

LATITUDE 44° 52′ 46″—LONGITUDE 93° 4′ 54″.

This town is a port of entry, the county seat, and the seat of government of the Territory of Minnesota. Also, pleasantly situated on the east bank of the Mississippi river, eight miles from the Falls of St. Anthony, and five miles from Fort Snelling; about 2070 miles from the mouth of the Missippi river, and near its confluence with the St. Peters river, and is elevated about 800 feet above the Gulf of Mexico. It is near the geographical centre of the continent of North America, in the North Temperate Zone, and must eventually become a central nucleus for the business of one of the best watered, timbered, and most fertile and healthy

countries on the globe. It is surrounded in the rear by a semicircular plateau, elevated about forty feet above the town, of easy grade, and commanding a magnificent view of the river above and below. Nature never planned a spot better adapted to build up a showy and delightful display of architecture and gardening, than that natural terrace of hills. During the past year it "has sprung up, like Minerva, full armed, from the head of Jupiter;" and now contains four churches, several large hotels, two steam saw mills, in operation, a large number of stores, two daguerreotypists, with many other branches of industry—and fifteen hundred inhabitants. Last, not least, three weekly newspapers, and one monthly, printed in the Sioux and English languages; the whole forming an instance of Western enterprise and determined energy and resolution hitherto unsurpassed in the history of any frontier settlement.

Whatever direction we take among the localities of Minnesota, we find subjects of interest, whether in awaking the spirits of the dusky past, or alighting upon the improvements of our own times. There is scarcely a section of the world newer than this: and, we may add, there is no section which has started upon the horizon of civilized life more suddenly.

From the lower landing of St. Paul, we rise upon a bench some seventy-five feet above the river, and come upon the site of the lower town, which—with the extension up the river as far as the upper landing, a distance of three-fourths of a mile, where is a most vigorous young town of later growth—completes St. Paul, the capital of Minnesota. Retiring from the lower town, about half a mile northerly, across a plain which appears to have once been the basin of a lake, for it is nearly walled in by a bluff fifteen feet high, we suddenly rise upon a third bluff nearly two hundred feet high, and some three hundred feet above the Mississippi.—This ascent is wooded, and so is the region beyond, for perhaps twenty miles. From this point we overlook St. Paul; extending the vision down the river some twenty miles, taking within the compass of the eye a wide stretch of the Sioux lands and bluish hills far away up the St. Peters, in the west.

To the north, though the grounds descend from the bluff, for some three miles, there are but few objects of distinct outline. After viewing a small lake, lying about a mile to the north-west, as a setting to a border of oak openings, we proceed through a constantly alternating succession of oak-covered knolls, marshy dells, and around the margins of small tamarack swamps. These swamps, though dismal, for their size, are the most curious objects to the eye of the stranger, which this region presents. The trees grow so thick that they choke each other out of the chance for a subsistance, or else they die a natural death after a certain age, so that they resemble a scene of shipping in a seaport most strikingly. It is easy, when in a dreamy mood of mind, to fancy these bare

poles as the masts of some diluvian squadrons, which had lost their reckoning, and finally getting discouraged, moored in the mud.

There are no guide-boards on this road, and the angler or sportsman—who can't *parler français* with the French residents, whose cabins nestle in some of the sly retreats along the path—may thank the stars if he does not get lost over night.

The region is spotted all over, at distances of one to three miles, with bright and cool little lakes, that abound in fish; among which is the real White Mountain trout.

Having had personal observation no farther out in this direction than some four miles, we must take a tack in our description, merely adding that there is a settlement, two miles beyond our discoveries, called Little Canada, composed of French; that, sixteen miles from St. Paul, is a lake famous for fish, and somwhere else in that vicinity are the extensive cranberry meadows, temporarily occupied by the Sioux Indians, who have already sent into St. Paul 4000 bushels of cranberries this season, (1850.)

The scene over the bluff in the rear of the upper town of St. Paul, is the delightful prairie, which extends off about six miles towards St. Anthony Falls.

The true quality of the soil of the comparatively chaotic lands in the rear of St. Paul, is, after all, better than that of the lands of Western New York. It has less of the black alluvion than our lands generally, yet it is highly productive; and so far as experience has tested its capabilities, it does not depreciate at all by cropping. It is strongly impregnated with lime, and possesses in a high degree the active principle imparted by a variety of mineral substances.

This soil can be made, by the application of manure, of which an abundance can be had for the trouble of carting from town, more productive than the best river bottoms. For the purpose of gardening, we are inclined to prefer it to the latter; and if we were to make a claim, we would "take up" the lands we could find unoccupied, nearest the town.

The lower part of the town was laid out 26th Feb. 1849, by Louis Roberts, Henry Jackson, David Lambert, Benjamin W. Brunson, Chas. Cavileer, Henry H. Sibley, J. W. Bass, Augustus L. Larpenteur, W. H. Forbes, J. W. Simpson, Vital Guerin, and others. That portion of the town which is known as the "Upper Town," was laid out by Henry M. Rice and John R. Irvine, in January, 1849; and a further addition to said town was made in the summer of 1849, by Samuel Leech, C. K. Smith, W. H. Forbes, James McC. Boal, Louis Roberts, Alexander Wilkin, H. W. Tracy, Jr C. Ramsey. This addition is called "Leech's Addition." In it there are nine blocks, fourteen lots in each block. —The streets and lots occupy forty acres of land; and lastly, the addition of Whitney and Smith, was laid out also in the spring of 1849, and is situated in the lower part of the town.

The legislature has authorized the location of the capitol buildings of the Territory at this point. The commissioners of the public buildings will be elected this spring, and the erection of the capitol will be given out and the work commenced soon.

We have many branches of business carried on here already. We give a meagre and very imperfect list of some of our business men, as follows:

STATISTICS.

EDITORS AND PUBLISHERS.

James M. Goodhue, Minnesota Pioneer.
Charles J. Henniss, Minnesota Chronicle and Register.
D. A. Robertson, Minnesota Democrat.
G. H. Pond, Dakota Friend.
J. W. Chaskarak, Watab Reveille.

Hotels and boarding houses, 6. Lawyers, 18. Physicians, 6. Druggists, 4. Merchants, 20. Carpenters, 8. Saddlers, 2. Shoemakers, 1. Painters, 4. Tailors, 5. Watchmakers, 1. Bakers, 2. Tinners and Stove Dealers, 2. Insurance companies, 4. Livery Stables, 2. Saloons and Coffee Houses, 10. Blacksmiths, 2.

ASSOCIATIONS.—Free and accepted Masons, 1. Odd Fellows, 1. Sons of Temperance, 1.

Three Churches, viz: a Methodist, Baptist, and Presbyterian, have been organized in St. Paul.

SAINT ANTHONY.

Saint Anthony City is situated near to and below the Falls of St. Anthony. W. A. Cheever is the proprietor, and it was laid out 3d January, 1848, and consists of 182 lots. The Falls, including the rapids, make a total descent of sixty-four feet and ten inches.

Franklin Steele, Esq., laid out a plot in 1849, opposite the Falls, which consists of 56 blocks of lots; in each block there are ten lots.—The town is called St. Anthony.

P. Butcheneau in 1849, laid out an addition to St. Anthony, consisting of twenty-three blocks of lots, each block containing fourteen lots.

I. Atwater, Esq., of St. Anthony Falls, writes as follows:

SIR:—Your esteemed favor of the 19th January last informing me of my election as a member of the Minnesota Historical Socie-

ty, has been received. Taking a deep interest in the objects which the Society has in view, I embrace the opportunity to contribute my mite to the general stock, by giving you a few items in regard to the location and early history of the village of St. Anthony.

The direction of the Mississippi at this place, and for several miles above, is nearly south. Opposite the village, three islands, lying nearly in a straight line, one above the other, divide the river into two parts—the largest body of water flowing on the right hand of the islands. The upper island is small, containing less than ten acres of land, and is yet unsurveyed. It is still uncultivated, though the trees with which it was but a short time since densely covered, are fast disappearing, and it will soon be brought under tribute to the husbandman.

The second island is some eight or ten rods below, and contains about forty acres. It is a beautiful spot of ground, covered thickly with a great variety of thrifty timber, among which the sugar maple is conspicuous. The banks are high, bold, and rocky, on the upper end, gradually descending at the lower, almost to the water's edge. Near the middle of the island, a small bluff rises, some ten or fifteen feet high, with a slope as nicely and beautifully turned as if it had been the work of art. It forms a semicircular curve at the lower end, gradually widening towards the upper, making one of the most charming building sites that can be imagined. Near the lower end of this island commence the rapids in the main stream, the water foaming and dashing over the rocks, which lie scattered across the bed of the stream, as far as the falls.

Franklin Steele, Esq., owns this island, having entered it in 1848, as soon as it was surveyed. It is considered valuable property, the proprietor, as is reported, having been offered four thousand dollars for one half of it.

The third island lies immediately below, so near the last mentioned that they were formerly connected by a slight bridge. It contains, on a rough estimate, some fifteen acres, and is not yet surveyed. A small house has been erected upon it by the Mlll Company, as a pre-emption claim. On each side of this island are the Falls of St. Anthony. Below the falls are two small islands, near the right shore. The falls of the main channel are several rods above those on this side, the greater volume of water having worn away the soft crumbling rock much faster.—The recedence of the falls on both sides is so rapid as to be almost yearly perceptible; making the suppositions of some geologists highly plausible, that originally they were as low as Fort Snelling. During the high water of last summer, huge masses of rocks were torn from the islands washed by the falls, and carried a considerable distance down the river; large blocks of sand and limestone detached from the ledge of rock, over which the water is precipitated; and altogether, the falls underwent a greater change than had been observed for many years.

Franklin Steele, Norman W. Kitson, and Mr. Stumbough, made

a claim on lands in this vicinity, as early as '36 or '37, soon after the Indian title was obtained by government. The land, however, was not surveyed and entered till 1848. Charles Wilson seems to have been the first American who ever made a permanent residence here, having arrived in the spring of 1847. There was then but one house in the place, standing on the bluff some thirty rods below the mills, and built of logs. Roving Frenchmen and trappers may have temporarily resided here, previously; but not as permanent settlers. Mrs. Ard Godfrey may claim the honor of having given birth to the first of the fair daughters of St. Anthony; and her husband, A. Godfrey, Esq., that of having commenced the first improvement of the water power at the Falls. Under his superintendence, in the fall of 1847, the dam and saw mills owned by the St. Anthony Mill Company, were begun, and the first saw put in operation in August, 1848. Three others were completed soon after, making four saws now running, of an average capacity of 6000 feet each per day. In the year 1850, there were about nine million feet of lumber in the dam, much of which was lost by the high water in the summer.

R. P. Russell, Esq., erected the first frame dwelling in the town, in 1847 and opened the first store. There are now six stores, and one hotel, opened July 4th, 1850. There are at present three lawyers, three physicians, four clergymen, and the same number of organized churches—Presbyterian, Episcopalian, Methodist and Baptist. The Baptists and Episcopalians have erected, though not completed, houses of worship. Two school districts, known as No. 5 and 6, were organized in the village in the fall of 1850. The former numbers 156 scholars, and the latter 115. In addition to the public schools taught in these districts, several flourishing select schools have been maintained the past year.—The whole population of the place may be safely estimated at one thousand souls.

I should have stated, that before the erection of the dam, which has changed the current to some extent, a horse and wagon has not unfrequently been driven across the main channel, some fifty or sixty rods above the falls. Some investigations are now being made, to ascertain the average annual distance which the falls recede, which may throw further light on this interesting subject.

STILLWATER.

The following letter from John McKussick, gives a very satisfactory account of the first settlement of this village and the surrounding country:

Dear Sir:—In reply to your enquiry for the facts, dates, &c., as to the early settlements of the Territory now included within the limits of Washington county, I send you items as they occur to me, hoping that a hurried review even, of our short history, may afford you something satisfactory.

The first seettlement of this county was commenced in 1837 at what is called Taylor's Falls—by Baker, Taylor and others of the Northwest Lumber Company. About which time, the Government treaty with the Sioux and Chippewa Indians was concluded for the land, the Sioux owning the southern, and the Chippewas the northern portion of the land in this county. July 17th, 1838, the treaty being ratified by Congress, consequently several settlements were commenced about that time. Several by the French, along the shores of Lake St. Croix, as well as the more important settlements of the Marine and Falls of St. Croix.

The first Steamboat that navigated the river St. Croix, was the Palmyra, July 17th, 1838, having on board the original proprietors of the Marine and Falls of St. Croix Saw Mills, together with their necessary supplies and machinery, for the erection of the mills at those places. The Falls of St. Croix not being within our country, I therefore proceed to notice next the settlement of the Marine Mills, which was commenced in 1838, by Samuel Burkleo, formerly of the State of Delaware, Orange Walker from Vermont, and others of the Marine Lumber Company, who succeeded in erecting a good saw-mill for the manufacture of pine lumber. Other buildings of different kinds have since been built, together with one large and commodious tavern stand. This place is a business point of considerable importance.

At this time, the jurisdiction of Crawford county, Wisconsin Territory, extended over all this Territory, northwest from Prairie du Chien. Joseph R. Brown was chosen Representative to the Legislative Assembly of Wisconsin, to represent the wants of the population, and among the many representations of the wants of the people, was the organization of a new county here, which was granted by the Legislature in 1841, as will be seen by their act, Nov. 20, entitled an act to organize the county of St. Croix. At the time prescribed by law for holding the court, up came the Judge to hold the court at the seat of Justice, and on arriving at Dakota, the seat of Justice, to his great astonishment, the only building in the Town was a rough log cabin, occupied by a lone Frenchman, who, it appears, was employed by the proprietor of the Town to take care of the county seat in his absence. This kind of reception not meeting the expectations of the Judge, he very naturally took back tracks, and thus ended the judicial proceedings for St. Croix county. It was soon after attached to Crawford county, where it remained until 1847, when we were again reorganized for judicial purposes, and the county seat established at Stillwater, where the first U. S. District court was holden, in what is now

Minnesota territory, being the June term of 1848; there being no court house, the court was holden at tne store of John McKussick, by the Hon. Charles Dunn, Judge of said court.

Stillwater—this town was first settled, Oct. 10th, 1843, by John McKussick, formerly from Maine; Elam Greely from Maine; Calvin F. Leach from Vermont, and Elias McKean from Pennsylvania, proprietors of the Stillwater Lumber company; having selected this site on occount of its valuable water power, for the erection of a saw-mill, which was put in operation early in the spring of 1844. The simple board shanties, of the first settlers, together with the mill remained the only buildings in the place until the fall of 1844. when the first frame house was built by A. Northup for a tavern stand.

From this time the place steadily grew in importance. In 1846 a post office was established and Elam Greely appointed postmaster.—In 1848 the town was laid out by John McKussick, one of the proprietors thereof. About this time the county commissioners authorized the building of a court house at this place, which was completed in 1850.—A school house was also built here in 1848, schools having been established as early as 1846 and held in private houses. A Presbyterian church, being the first in the town, has been erected the past year, for which we are indebted to the zeal and perseverance of the Rev. J. C. Whitney, Pastor of the Presbyterian church of this place. The settlement of the Arcole Mills, which ranks next in age, was commenced in 1846, by Martin Mower, W. H. Folsom, formerly from Maine; and Joseph Brewster from New York, who erected a saw-mill at this point. Since which many other buildings have been built, which, together with the mill, give this place the appearance of a thriving little village.

$20,000 will be expended in Stillwater this year for the erection of a Penitentiary for the Territory.

THE ST. CROIX AND THE PINERIES.

The distance from Stillwater to the Falls of St. Croix, is 33 measured miles. The only visible habitations to be seen as you journey on the ice, are the Arcola, the Marine, and the Osceola mills. * * * * * * * * *

St. Croix contains a population of six hundred. The streets are regularly laid out, the buildings are neat and handsomely painted, the citizens are frank and hospitable, but the land is rocky and mountainous, the soil sterile, all having a Yankee appearance.

* * * * * * *

The timber about St. Croix is well *mixed*, the maple being the most abundant; then ash, elm, and the red birch, (which grows to a great hight,) are to be found, with a pretty good supply of white and red oak. The wild red plum trees are common around the prairies, so is the crab apple—and the black and red cherry. There are a few very large black walnuts; but that timber is not plenty. The poplar is quite plenty, adjoining the prairies. From an experiment made by an old back-woodsman, a year or two ago, it was ascertained, that the soil in this neighborhood would produce as good wheat, oats and potatoes, as the most favored parts of Illinois and Wisconsin. Corn has been cultivated with success by the Indian traders.

Pokagomon, six miles from Greely's Station, is somewhat noted as an old missionary station. Here the Rev. Frederick Ayers, Mr. Boutwell and Mr. Ely remained for a long time; Mr. Russell opened a large farm at this point.

A word on the lumbering resources of the St. Croix. This winter there are twenty-one teams engaged in the business, with an average of thirteen hands to each team. The season thus far, has been favorable. Comparing the present operations with the past, the result of each team's labor, will be 1,000,000 of feet; which will make the total amount of lumber obtained on the St. Croix and its tributaries, this winter, twenty-one millions of feet, equal to eighty-four thousand dollars! Mr. Greely has two teams, and he will clear at least four thousand dollars, by his winter's work. But *such* groves of pine—and so handy to be obtained! From what pine I saw, and by what I learnt from others, I judge there is enough to last fifty years to come, to say nothing of the Rum river pinery, which is said to be equal to the St. Croix. Mr. F. Steel has five teams on Rum river, which is only twenty-five miles west of Greely's Station. I think the lumbering facilities of Minnesota, will eventually absorb most of the enterprises and speculations; as a good market can always be found for lumber below, which will, at the same time, be the means of our farmers having a market for all their surplus produce at their door, as lumbermen would rather pay a good price for supplies obtained in Minnesota than to be troubled to get them up from St. Louis or Galena.

TABLE OF STEAMBOAT ARRIVALS, ETC., AT FORT SNELLING FOR THE PAST SIX YEARS.

It shows the regular and rapid increase of business on the river, also the remarkable regularity of the appearance of water fowl in our waters, of which we have such abundant supplies, almost uniformly on and after the sixth day of every March.

1844—41 arrivals. Otter, Harris. first boat, April 6th. Geese and ducks flying, March 6th. Mississippi opened March 20th; closed November 23d, 1843.

1845—48 arrivals. Otter, Harris, April 6th, first boat. Geese and ducks flying, March 6th. Mississippi closed 26th November. Coldest day Feb. 19th, 18 degrees below zero.

1846—24 arrivals. Lynx, Atchison, March 31st, first boat. Ducks and geese flying March 1st. Coldest day January 25th, 19 degress below zero. Mississippi closed Dec. 5th.

1847—47 arrivals. First boat, Cora, Throckmorton, April 17th. —Mississippi closed November 29th. Geese and ducks flying March 17th. Coldest day February 18th, 37 degrees below zero.

1848—63 arrivals. First boat Senator, Harris, April 7th. Mississippi closed Dec. 4th. Feb. 18th, 26 degrees below zero. Geese and ducks flying March 6th.

1849—85 arrivals. Highland Mary, Atchison, first boat April 9th.—November 18th, first snow. Dec. 7th, Mississippi closed. December 30th, coldest day, 28 degrees below zero. Geese and ducks flying March 4th.

1850—104 arrivals. Highland Mary, April 19th. Nov. 15th first snow. Coldest day, February 3d, 28 degrees below zero. Geese and ducks flying March 10th. Dec. 4th, closed the Mississippi at St. Anthony.

April 19th. Steamboats Highland Mary and Nominee arrived through the ice at St. Paul landing.

May 24th. The steamboat Gov. Ramsey made her first trip from the Falls of St. Anthony to Sauk Rapids, 100 miles. This was the first attempt ever made to run a steamboat above the falls.

July. Great flood this month in the Upper Mississippi and its tributaries; the steamers Yankee, Nominee and Anthony Wayne, taking advantage of it, ascended the St. Peters river, from 100 to 200 miles further than its waters had ever been rippled by the paddle-wheels of a steamboat.

July 25th. The annual trading caravan from the half-breed settlements on the Red river of the North—in latitude 49 degrees —arrived in St. Paul. The distance travelled was over 600 miles. The caravan consisted of some two hundred ox carts, heavily laden with furs, &c., and attended by several hundred men, women and children.

Dec. 3. The Mississippi river closed at St. Paul. The last boat of the season left this port on the 19th of November.

A number of schools have been established in Minnesota, and to the imperishable honor of the Legislature we are informed that it has "made ample provision for the education of every child in or to come into the Territory."

Article VI.

REGULATION OF INTERNAL COMMERCE.

It appears from a circular, addressed to W. W. Green, Esq., Collector of the port of St. Louis, that the treasury department of the United States has requested the collectors of customs, and perhaps others, to suggest suitable plans for obtaining and arranging for publication the statistics of the internal commerce of the Nation; for the purpose, as it seems, of presenting the subject to the consideration of Congress at its next session. And regarding the measure in contemplation as highly important to all the leading interests of the country, we are moved by a sense of duty to offer a few remarks in favor of its adoption.

Owing to the vast extent of the United States and the rapid development of the resources of newly settled districts, there is, perhaps, no other nation where full and correct information respecting the production and consumption of every part of the country is so necessary as here; and no where else, we imagine, do intelligent men generally entertain such crude and vague ideas respecting their own commerce. Nor can it be expected that more enlightened and consistent views can be entertained until an efficient system of collecting and publishing facts shall have been adopted and reduced to practice.

It is owing chiefly to the want of correct information on this subject that so many conflicting opinions relating to the tariff, and also the excitement growing out of its discussion have prevailed—threatening, at times, even the dissolution of the Union. The importance of systematising the facts relating to our internal commerce, is becoming more apparent every year. Until within a few years past, almost the entire surplus products of the West were destined for the eastern and European markets; and the state of the demand and supply in our seaports and abroad, embraced the principal facts important to be known by the merchant and producer—the economy of the entire nation was involved in one system of commerce, the centre and controlling power of which was established in London. But a new commercial system is being developed in the valley of the Mississippi, based chiefly upon its manufactures and mineral resources; and, to the end that we may comprehend its operations and give it a wise direction, we must note all the principal facts as they occur. These facts, when collected and made public by authority of the general government, will arrest the attention of manufacturers and capitalists of other countries, and will doubtless be the means of inducing many to transfer their business to this region. The commercial and manufacturing statistics of western cities have hitherto been too imperfect to afford the kind of information which is most necessary to

enable us to understand the true nature and extent of our commerce. We need a regulation, by act of Congress, that shall provide for the registration of all commodities received, by public conveyance at least, at the principal cities, designating the state in which they are produced; and the quantity and place of destination of all commodities exported by rivers, canals, or railroads. The facts thus preserved would exhibit the annual progress of each State in agriculture, mining, and manufactures, with a sufficient degree of accuracy for most practical purposes; and would show very nearly the gross amount of provisions and other raw material consumed in the cities.

We are not advised that the civic government of any of our western towns, except St. Louis, has provided for the registration of imports; and here we believe no account is taken of the exports. No one can tell what proportion of our imports are consumed at this place or what part is exported to New Orleans, the Ohio river, or other markets.

We know that the number of steamboat arrivals from the Ohio river is increasing annually: and that the number of arrivals from N. Orleans has been decreasing for several years past; but whether the actual quantity and value of produce and general merchandize have increased or diminished, is left to conjecture, and so in respect to almost every thing relating to our internal commerce. Amidst such confusion of facts, it is not to be expected that either the people or their representatives can arrive at just conclusions touching the national or local interests.

Such a regulation may add considerably to the labors of the Custom House officers, and increase, perhaps, the cost of that branch of the public service; but these are matters which should not be regarded as objections to a measure of such general importance.

Indeed we can scarcely imagine that objections can be raised to its adoption by any party or from any quarter of the country; but it does not therefore follow as a matter of course that Congress will act favorably upon the subject. Measures that are not calculated to produce some degree of excitement, are always in danger of being neglected; and it is the duty of those most interested to urge them upon the attention of their representatives. It is rare that members of Congress take an active interest in measures that have not been discussed by their constituents; and, therefore, that the western delegation may be left without excuse in regard to this, we trust that the press will discharge its duty by bringing the subject fully before the country, with a view to the action of the next Congress.

The measure is one that should not be delayed. For the information which it is calculated to impart will. in many respects, be highly useful to the projectors of schemes of internal improvement and be the means of not only indicating the best systems, but of

securing the confidence and encouragement of capitalists. It will constitute the materials of which may be constructed a more enlightened system of impost duties on foreign commerce, and lead to a more permanent and uniform state of prosperity, than has heretofore been enjoyed by the people of this country.

ANALYSIS OF GRASSES.

[From the Genesee Farmer.]

Very few farmers duly appreciate the value of grass when turned to the best possible account. Broad acres have been too cheap, with their almost spontaneous herbage ready to be cropped by the domesticated animals of man, in this country, for him to study closely how to make two spires grow where only one grew before. In all the older States, however, this native abundance of nutritious forage and grazing is either gone or fast departing, never to return except through the art and science of the husbandman. The time has come when the study of the grasses is called for by every consideration of private interest and the public good.

In his account of the "Geographical Distribution of Grasses," Schouw remarks: "Persoon's Synopsis contains 812 species—1-26th part of all the plants therein enumerated. In the system of Roemer and Sheiltes there are 1800; and since this work, were it brought to a conclusion, the family would probably contain *forty thousand* in all." This learned author adds: "The distribution of cultivated grasses is one of the most interesting of all subjects. It is determined not merely by climate, but depends on the civilization, industry, and traffic of the people, and often on historical events." The herdsmen of Switzerland find pastures for their cattle on mountain slopes above the range of forests; and the same is true on the high plateau of Central Asia. One of the most valuable books for reference, on this and all kindred topics, is Prof. Lindley's "Vegetable Kingdom"—a work which will pay well to reprint in this country. Prof. Emmons has given the results of his analyses of several varieties of grasses grown in the United States, and of red and white clover, in his "Agriculture of New York," which furnish many new and valuable facts. On page 70, vol. 2, he says:

"*Timothy Grass*—(*Phleum pratensis*)—First specimen, collected May 30, 1848. Stalk 24 inches long, head not visible.

Proportions—	Stalk	65.30
	Leaf	34.70
		100.00

Water in stalk	81.00
Dry matter	17.80
Ash	1.20
Ash calculated dry	6.74
Water in the leaf	75.00
Dry matter	23.00
Ash	2.00
Ash calculated dry	8.69
Water in the whole plant	78.00
Dry matter in the whole plant	20.46
Ash in the whole plant	1.60
Ash calculated dry	7.82."

As specimen No. 1 varies not from the above, we omit it. 100 parts of the ash of timothy hay gave the following results:

Silica	41.650
Phosphates	16.925
Carbonate of lime	0.200
Magnesia	0.500
Potash	30.760
Soda	1.020
Soluble silica	0.200
Chloride of sodium	2.490
Sulphuric acid	4.130
	97.875

By the above figures it will be seen that over 72 per cent. of the earthy matter removed from a meadow or pasture in the plant called timothy, is silica and potash—both of which are of course dissolved in water before they enter the roots of the plant. The stems of all grasses are large consumers of these minerals, which in a soluble condition are seldom abundant in any soil. As in wheat, rye, oats, barley, and maize straw, the quantity of ash varies considerably in different samples grown on unlike soils, so in timothy, red top, orchard and other cultivated grasses, the proportion of earthy matter varies in an equal degree. Nearly all meadows contain several species of this numerous family of social plants, besides more or less of clover. Probably 6 per cent of ash per 100 pounds of dry hay will be a fair estimate. This gives 120 pounds per ton of hay removed from the soil.

The ash of Red Top (*Agrostis Vulgaris*) differs especially from that of timothy. It contains much less potash and far more lime, as the following analysis by Prof. Emmons indicates:

Silica	41.90
Phosphates	13.75

Potash	4.92
Chloride of sodium (salt)	2.00
Carbonate of lime	10.03
Magnesia	6.64
Soda	9.61
Organic matter	2.35
Sulphuric acid	7.30
	98.50

From the quantity of lime, sulphuric acid, and soda in the above ash, it is aparent that gypsum and common salt in addition to wood ashes will be of great service on red top meadows. Salt and plaster are exceedingly valuable articles to mix with all stable and barn-yard manure, as well as with night soil, before their application to the land.

A luxuriant plant of Spear Grass (*Poa pratensis*), sometimes called herds grass [Kentucky blue grass, Eds. Lou. Jour.], just headed out, gave of

Water	81.564
Dry matter	18.436
Ash	2.267
Ash calculated dry	12.296

Analysis of ash from well dried hay.

Silica	56.320
Phosphates	14.980
Carbonate of lime	3.540
Potash	15.624
Soda	6.828
Magnesia	1.996
Sulphuric acid	0.200
Chlorine	0.863
	100.351

Another specimen gave the following results, which Prof. E. suggests may be a fairer average sample of *poa pratensis* than the above:

Silica	48.300
Phosphates	11.050
Lime	0.030
Magnesia	trace.
Potash	3.531
Soda	12.505

Sodium	4.180
Chlorine	6.365
Sulphuric acid	5.156
Organic acid	4.400
	98.186

The quantity of chlorine, soda, and sodium (all of which are common salt) in the above deserves attention. The almost total absence of lime is remarkable. We respectfully suggest to farmers to try the easy experiment of sowing broadcast about two bushels of salt on an acre as an experiment, applying it five weeks before haying time. It will be more likely to benefit dry than wet meadows. Two bushels of salt and two of wood ashes, unleached, will doubtless pay well for the expense incurred.

In former volumes of this journal, we have frequently taken occasion to say, from our personal observation, that young clover, young corn, and other plants cut for soiling should be partially dried before feeding. The following results bear upon that question. Red clover gathered when nine inches high, contained

Water in the stem	88.30
Dry matter	10.95
Ash	0.75
Ash calculated dry	6.85
Water in the leaf	71.70
Dry matter	20.00
Ash	2.00
Ash calculated dry	10.00
Water in *leaf and stalk*	84.15
Dry matter	14.48
Ash	1.37
Ash calculated dry	9.46
Ash in a ton	211.68 lbs.

All plants, when young and growing rapidly, contain a large amount of water to facilitate the circulation of their aliment. There is more Water in 100 pounds of young clover or corn than in a like weight of blood. In the arterial blood of a horse there is about 76 per cent. of water; in that drawn from a vein a little less, say 757.251 in 1,000 parts. To keep horses, cows, working oxen, and sheep in health, and provide for them a generous supply of food, are objects of great importance to the farmer. Science will aid him much in this department of his great profession, if he will not treat her with rudeness or neglect.

ANALYSES OF INDIAN CORN.

The following analyses of Indian corn and the accompanying remarks on inorganic manures, appeared in Downing's Horticulturist some time last year, and appear to have been extracted from a prize essay on Indian corn, by Mr. Salisbury. It is stated that the essay of Mr. S. contains the analysis of twenty varieties. The following is the analysis of the common eight rowed yellow corn.

ANALYSIS OF THE WHOLE KERNEL.

Starch	50.64
Sugar and extract	7.46
Sugar	1.50
Fibre	6.28
Matter separated from fibre	0.05
Albumen	8.64
Casein	1.70
Gluten or zein	4.56
Oil	4.60
Dextrine or gum	4.84
Water	10.22
(In 100 parts, or)	100.48

ANALYSIS OF THE ASH OF KERNEL.

Carbonic acid	trace.
Silicic acid	1.450
Sulphuric acid	0.206
Phosphoric acid	50.955
Phosphate of iron	4.355
Lime	0.150
Magnesia	16.520
Potash	8.286
Soda	10.908
Chloride of sodium	0.249
Organic acids	3.100
(In 100 parts, or)	97.000

"We see by the (various foregoing) analyses that the several inorganic bodies removed from the soil by a crop of maize, rank as follows: commencing with the highest, silicic acid, soda, phosphoric acid and potash, sulphuric acid, magnesia and chlorine, lime and iron.

"The aggregate amount of inorganic bodies taken from an acre of land, annually, by a stout crop of maize, is by no means so large as is generally supposed; and yet it is sufficiently so to exhaust the best soil in a brief period of years of some of those bodies which act so essential a part in the constitution of the plant. The amount, generally, would not exceed 600 lbs. Indeed, it would, in a majority of cases, fall short of this. In some instances, however, of an ordinary stout growth of some of the larger varieties, it might even go up to 1,000 pounds; but such cases would rarely occur. Six hundred pounds may then be assumed as the quantity ordinarily removed from an acre of land by a stout crop of maize; or, what would be a better criterion to follow, one hundred pounds of inorganic matter for every ten of dry produce. Of this, about one-third is silicic acid, one-sixth soda, one-eighth potash, one-eighth phosphoric acid, one-twelfth sulphuric acid, one-eighteenth magnesia, one-eighteenth chlorine, and one-eighteenth lime and iron.

"The *silicic acid* is mainly removed by the straw or leaves, sheaths, and stalks. There is generally an abundance of this body in the soil; it only being necessary to secure the presence of a sufficiency of the *alkalies* to form with this acid enough of its soluble salts to meet the demands of the plant.

"The *potash* and *soda* enter quite largely into the composition of all parts of the plant; but more so into that of the stalks, grain, and cobs, than of the other portions. Soils, though they ordinarily contain considerable of these two bodies, yet they generally have a quantity by far too small to supply the lavish demands of this plant for any great length of time.

"*Phosphoric acid* enters largely into the grain, and quite largely into the cob and stalk. It constitutes about one-eighth of the ash of the entire plant. Soils are commonly deficient in this acid; or at least they contain much less of it than almost any other of the organic bodies which enter into the composition of plants. The quantity usually removed from an acre of land annually by a good crop of maize is from 60 to 75 pounds, or from 10 to 12 and 13 pounds per ton of dry produce.

"*Sulphuric acid*, from the quantity taken away by a crop seems to be an essential ingredient of this plant. It enters more largely into the leaves, stalks, and sheaths, than into the grain. From 45 to 60 pounds are removed by the annual produce of an acre, or from 7½ to 11 pounds per ton of dry plants.

"By referring to the foregoing calculations, we notice that the *magnesia* is removed from the soil in larger proportions than the lime; or, in other words, the maize plant requires more of the former than of the latter. This is by no means an uninteresting feature. About 16 per cent. of the ash of the grain is magnesia, while the same ash has usually less than one per cent. of lime. The magnesia in the kernels is usually in the state of a phosphate.

Lime enters more largely into all parts of the plant except the grain and cob than magnesia; yet the aggregate amount of the latter in the whole plant is greater than the former. Hence there is evidently as much necessity of adding magnesia to the soil for the maize crop as lime; and even more, if one of these bodies can be said to rank in importance before the other; since it enters so largely into the composition of the seed, constituting about one-sixth of its ash.

"Lime is often added to soils in considerable quantity, and has ever been considered "the basis of all good husbandry." The greater value of lime over that of magnesia, if any (in the maize crop) is in mechanically and chemically influencing the soil, aside from serving directly as food to the plant. Indeed, it is by no means a settled question that magnesia, when properly applied, exerts a less beneficial influence upon the soil than lime. Neither of those bodies, however, possess the property of maintaining, unimpaired, the original richness of a soil. Hence one cannot be strictly said to be more valuable than the other. There is an equal necessity of returning any or all of the other inorganic bodies which are removed from the land, as they become less in quantity in the soil than is necessary amply to supply the healthy demands of the plant, as there is in returning either or both of these as they become deficient."

CURCULIO.

This is, perhaps, the most destructive enemy to plums and other fruits of the smaller varieties, that is known to the Horticulturist of this country. And notwithstanding the many remedies that have been prescribed by observing individuals in this and other countries, but little has been done to prevent its ravages. The following observations on the habits and character of this insect were made in this vicinity by one of our most successful Horticulturists, and are, in our opinion, worth more than all the other remedies combined, that we have seen published.

The author is entitled to the gratitude of fruit growers and the lovers of good fruit everywhere, for his patient and intelligent investigation of the habits of this destructive insect.

The article was written for the Western Horticultural Review, but we take pleasure in giving it a place in our Journal for the benefit of our readers. EDITORS.

ST. LOUIS, February, 1851.

MR. EDITOR: By inserting the following you may perhaps save

some one the time, expense and disappointment I have experienced in the last four or five years, in following out the hundred and one remedies in guarding against the attacks of the Curculio.

Last year I varied my mode of warfare by spreading a thick coat of cement on the ground under thirty-five plum trees, extending it to the full size of the tops of the tree. As soon as the plum made its appearance from the blossom, say about the 10th of May, I commenced jarring the trees every morning and evening, and continued to do so, until the 1st of August, and as the insects fell upon the cement, killed them. The first three weeks, the average number was not far from fifty per day. From the first of June to the 20th, nearly one hundred per day; after which time they gradually diminished.

Now for the result: From the thirty-five plum trees, comprising fifteen different varieties, I saved only about two bushels.

It is argued by many that this insect has great instinctive powers, and will not deposit its egg, where the fallen fruit is likely to encounter a pavement.

I know nothing about your eastern or northern Curculios, but I can assure you Mr. Editor, no such repugnance is felt or known by this insect in Missouri, and further, that no pavement ever invented, where Curculios are numerous, will guard against their attacks, unless extended to every fruit tree in the garden or orchard. It is wholly inconsistent with the nature and habits of this insect, to suppose that paving under a few trees will protect the fruit, while others, near by, are unpaved, for the simple reason that the Curculio attacks nearly every description of fruit. The nectarine and plum are their favorites, but the apple, pear, peach, apricot, cherry and grape are all subject to their attacks, and all serve absolutely as a means of reproduction.

I have taken the above mentioned fruits separately, placed each in different boxes of earth, and from four to six weeks the change from larva to the perfect Curculio would be complete.

There are three distinct species of this insect, one smaller, the other larger than the plum Curculio. The small one is nearly round, about half the size of the plum Curculio, and is mostly found upon grapes. The other is full a half size larger with a smooth shell and are not so numerous as either of the other kinds. Both of these insects, instead of making the well known crescent mark of the plum Curculio, perforate the fruit by boring a small round hole, in which they deposit their eggs with the same certainty of destroying it, as the plum Curculio.

During the time of jarring the trees, not a day passed without finding more or less of the two new species above described, in about the following proportion: Plum Curculio 25, Small do. 8, Large do. 3.

At the proper season of the year, by watching their movement patiently, large numbers will be seen emerging from the ground,

and after surveying their position, will follow the instinct with which nature has endowed them, by crawling up the tree instead of flying. I have often checked their progress in this way by putting a thick piece of pastboard around the tree in the shape of an inverted funnel, but their wings were soon brought into requisition to overcome the difficulty. They can apparently fly to a great distance, and in high winds are blown in every direction, for after such winds I have found them in different rooms in the first and second story of the house.

Your readers will naturally say, all this is very well, but give us a remedy that will effectually guard against the enemy.

I can safely say, there is a remedy, and a philosophical one, which, if faithfully carried out, will insure good crops of fruit so far as Curculio are concerned. First, then, cut off all means of reproduction by picking up every description of fallen fruit two or three times a week, and subjecting it to some process that will effectually destroy the grub or larva.

No advantage will be derived from this process the first year, for the curculio is already in the ground; but the satisfaction of having a good crop of plums the second year, will well repay for all the trouble of picking up the fruit.

I have studied the character and habits of these insects for the last ten years—have watched its movements for days and weeks—have tried every remedy published in the different agricultural works, all of which have totally failed, except jarring the trees, and paving, and these have only proved partially successful.

By picking up every description of fallen fruit no possible means are left for them to perpetuate their species. I am not aware that it has ever yet been discovered, that the Curculio can in any other way propagate its species, than by depositing its eggs in some description of fruit—and whatever description of fruit that may be, it must come in contact with earth in such a manner that the grub can escape, and bury itself beneath the surface.

No one can reasonably expect to be entirely exempt from this insect, as long as their neighbors are troubled with them, for some few will fly, or be blown into the trees under any and every circumstance, unless completely shielded by some covering or net work.

The most complete and accurate description of this insect, according to my own observations has been given by M. H. Simpson, of Massachusetts, in the June number of Downing's Horticulturist for 1850.

In this communication a remedy was given to guard against the Curculio, which proved eminently successful with Mr. Simpson and a Mr. Young of Kentucky, viz. syringing the trees with lime water. This remedy I have never tried.

STATEMENT EXHIBITING THE NUMBER OF AMERICAN AND FOREIGN VESSELS, WITH THEIR TONNAGE, WHICH ENTERED INTO THE UNITED STATES FROM FOREIGN COUNTRIES, DURING THE YEAR ENDING JUNE 30, 1850.

	American vessels.		Foreign vessels.		Total.	
To	No.	Tons.	No.	Tons.	No.	Tons.
Russia	34	12.877	6	2.121	40	14.998
Prussia	1	240	...	.....	1	240
Sweden and Norway	10	3.391	74	23.554	84	26.945
Swedish West Indies	4	449	1	45	5	494
Denmark	1	396	2	592	3	988
Danish West Indies	78	12,940	5	956	83	13,896
Holland	40	17.884	34	11.967	74	29.851
Dutch East Indies	8	3.689	....	.....	8	3.689
Dutch West Indies	143	22.964	23	3.248	166	26.212
Dutch Guiana	20	3.892	1	123	21	4.015
Hanse Towns	29	23.331	154	65.664	183	88.995
Belgium	49	23.033	15	5.756	64	28.789
Hanover	6	2.751	9	3.978	15	6.729
England	718	489.838	732	421.530	1.450	911.368
Scotland	40	18,906	113	55.026	153	73.932
Ireland	32	10.022	200	77.507	232	87.529
Gibraltar	7	2.334	1	290	8	2.624
Malta	1	168	1	236	2	404
British East Indies	51	23,537	....	.....	51	23.537
British West Indies	396	69.302	350	49.230	746	118.532
British Guiana	16	2.738	11	904	27	3.642
British Honduras	32	4.386	5	615	37	5.001
Cape of Good Hope	3	773	....	.....	3	773
British North American Col.	357	55,465	4,046	333.426	4.403	388.891
Canada	2.876	889.755	3.282	447.372	6.158	1.337.127
Newfoundland	1	122	15	1.695	16	1.817
Faulkland Islands	....	.....	91	17.434	91	17.434
Other British Possessions	6	1.223	....	.....	6	1.223
France on the Atlantic	185	106.307	107	32.637	292	138.944
France on the Mediterranean	28	8.560	39	10.215	67	18.775
Bourbon	....	.....	1	266	1	266
French West Indies	20	2.859	19	4.627	39	7.486
French Guiana	10	1.224	2	98	12	1.322
Miquelon & French fisheries	3	618	....	.....	3	618
French possessions in Africa	1	359	....	.....	1	359
Spain on the Atlantic	39	17.538	12	4.779	51	22.317
Spain on the Mediterranean	55	12.827	76	22.894	131	35.721
Teneriffe and other Canaries	11	2.173	5	1.215	16	3.388
Manilla & Philippine Islands	21	10.259	4	1.176	25	11.435
Cuba	1.250	249.307	90	33.030	1.340	282.337
Porto Rico	262	41.768	25	3.074	287	44.842
Portugal	9	2.768	26	5.018	35	7.786
Madeira	8	1.586	2	336	10	1.922
Fayal and other Azores	5	1.050	9	1.717	14	2.767
Cape de Verds	....	.....	....	.....	....	.....
Sicily	107	31.417	37	9.511	144	40.928
Sardinia	4	1.833	27	7.399	31	9.232
Tuscany	17	6.701	26	7.871	43	14.572
Ionian Islands	3	803	....	.....	3	803
Trieste and other Austr. ports	11	4.398	5	2.205	16	6.603
Turkey	23	6.076	2	429	25	6.505
Mexico	130	22.585	89	26.039	219	48.624
Central America	23	3.549	4	653	27	4.202
New Granada	195	104.176	20	5.295	215	109.471
Venezuela	72	11.536	17	2.708	89	14.244
Bolivia	4	846	7	1.280	11	2.126
Brazil	258	62.965	35	9.363	293	72.328
Argentine Republic	54	13.930	49	13.081	103	27.011
Cisplatine Republic	1	90	4	1.185	5	1.275
Chili	39	14.510	71	18.369	110	32.879

STATEMENT OF THE ENTRANCES OF AMERICAN & FOREIGN VESSELS—CONTINUED.

To	American vessels. No.	American vessels. Tons.	Foreign vessels. No.	Foreign vessels. Tons.	Total. No.	Total. Tons.
Peru	13	5.100	10	1.808	23	6.908
China	41	21.969	23	7.445	64	29.414
Hayti	320	44.690	35	6.289	355	50.979
South Sea Islands	4	1.101	10	1.891	14	2.992
South America	....	.....	9	2.586	9	2.586
Asia generally	3	945	....	.....	3	945
Africa generally	47	8.531	2	384	49	8.915
Equador	2	331	5	828	7	1.159
Pacific Ocean	90	30.502	....	.....	90	30.502
Atlantic Ocean	19	2.685	....	.....	19	2.685
Indian Ocean	15	3.679	....	.....	15	3.679
Sandwich Islands	39	9.267	24	4.195	63	13.462
Australia	5	1.126	....	.....	5	1.126
Liberia	3	993	....	.....	3	993
Uncertain places	1	198	1	468	2	656
Patagonia	3	875	....	.....	3	875
Total	8.412	2.573.016	10.100	1.775.623	18.512	4.348.639

STATEMENT EXHIBITING THE NATIONAL CHARACTER OF THE FOREIGN VESSELS WHICH ENTERED INTO AND CLEARED FROM THE UNITED STATES, FOR FOREIGN COUNTRIES, DURING THE YEAR ENDING JUNE 30, 1850.

	ENTERED. No.	ENTERED. Tons.	ENTERED. Crew.	CLEARED. No.	CLEARED. Tons.	CLEARED. Crew.
Russian	64	26.283	960	61	25.253	912
Prussian	52	15.901	615	38	12.192	462
Swedish	182	58.098	2.342	189	59.946	2.324
Danish	53	11.046	549	53	11.220	548
Hanseatic	199	74.776	2.919	210	77.570	3.083
Dutch	29	8.867	370	30	10.859	437
Belgian	15	5.193	222	15	5.131	228
Mechlenburg	6	1.625	65	3	740	28
Oldenburg	9	2.003	91	10	1.964	84
Hanoverian	9	1.727	78	11	2.545	114
British	8.999	1.450.539	77.642	8.715	1.404.799	75.145
French	116	30.762	1.527	106	27.644	1.360
Spanish	134	37.296	1.850	135	36.279	1.823
Portuguese	20	3.730	188	15	2.409	121
Austrian	16	7.489	270	13	6.447	227
Sardinian	44	11.790	586	35	9.852	462
Sicilian	22	5.703	270	18	4.455	203
Mexican	30	2.786	222	35	3.065	254
Venezuelan	10	1.713	80	11	1.938	92
Brazilian	9	2.382	109	9	1.899	90
New Granadian	5	693	38	6	1.618	72
Argentine	4	702	40	2	484	23
Cisplatine	1	255	15	2	313	19
Chilian	31	6.712	349	42	8.754	454
Hawarian	15	1.901	98	13	1.524	89
Peruvian	15	3.615	203	21	5.233	261
Tahatian	2	272	19	2	676	36
Equadorian	4	864	42	8	1.928	98
Haytien	2	307	14	2	307	14
Central American	2	204	15	1	78	9
German	1	354	14	....	.....	....
Lubeck	....	.....	....	2	584	22
Neapolitan	....	.....	....	2	410	19
Chinese	....	.....	....	1	98	5
Total	10.100	1.775.623	91.801	9.816	1.728.214	89.118

STATEMENT EXHIBITING THE NUMBER OF AMERICAN AND FOREIGN VESSELS, WITH THEIR TONNAGE, WHICH ENTERED INTO EACH DISTRICT OF THE UNITED STATES, FROM FOREIGN COUNTRIES. DURING THE YEAR ENDING JUNE 30, 1850.

	American vessels.		Foreign vessels.		Total.	
INTO	No.	Tons.	No.	Tons.	No.	Tons.
Passamaquoddy	53	9,257	667	49.196	720	58.453
Machias	2	332	I	57	3	389
Penobscot	9	2.710	5	1.430	14	4.140
Waldoborough	2	260	4	232	6	492
Wiscasset	4	1.025	....	.....	4	1.025
Belfast	6	820	....	.....	6	820
Bath	23	6.935	44	3.159	67	10.094
Bangor	22	3.198	2	167	24	3.375
Portland	131	28.624	316	35.571	447	64.195
Saco	1	148	1	65	2	213
Portsmouth	9	3.572	101	7.472	110	11.044
Vermont	330	86.828	174	12.607	504	99.435
Newburyport	10	2.110	118	6.495	128	8.605
Gloucester	19	3.487	159	8.180	178	11.667
Salem and Beverly	89	15.523	297	21.273	386	36.796
Boston	967	268.550	1.905	218.309	2.872	478.859
Marblehead	3	969	174	11.117	177	12.086
Plymouth, Mass.	....	.....	10	544	10	544
Barnstable	13	1.971	29	1.742	42	3.713
Fall River	56	10.201	22	2.538	78	12.739
New Bedford	122	32.121	12	1.033	134	33.154
Edgartown	66	12.576	6	710	72	13.286
Nantucket	....	.....	....	.....	....	.....
Providence	54	10.081	15	1.705	69	11.786
Bristol	33	5.534	....	.....	33	5.534
Newport	13	2.232	4	470	17	2.702
Middletown	2	249	1	61	3	310
New London	23	7.018	3	858	26	7.876
New Haven	64	10.771	25	5.406	89	16.177
Stonington	10	2.894	....	.....	10	2.894
Fairfield	10	1.648	50	5.247	60	6.895
Champlain	406	89.520	283	18.437	689	107.957
Oswegatchie	192	144.549	188	52.366	380	196.915
Sacket's Harbor	254	152.060	25	1.109	279	153.169
Oswego	681	122.311	976	73.482	1.657	195.793
Niagara	213	71.979	368	101.307	581	173.286
Genesee	70	20.548	145	19.529	215	40.077
Cape Vincent	238	149.647	43	6.704	281	156.351
Buffalo	199	16.741	523	91.596	722	108.337
New York	1.882	734.431	1.281	410.900	3.163	1.145.331
Greenport	2	504	....	.....	2	504
Philadelphia	352	100.009	185	32.361	537	132.370
Newark	....	.....	17	1.601	17	1.601
Delaware	....	.....	....	.....	....	.....
Baltimore	295	70.427	143	29.161	438	99.588
Georgetown, D. C.	7	1.260	2	154	9	1.414
Alexandria	14	3.039	45	7.599	59	10.638
Norfolk	43	6.415	31	7.866	74	14.281
Petersburg	3	1.655	6	1.862	9	3.517
Richmond	5	688	3	1.123	8	1.811
Tappahannock	4	393	3	325	7	718
Wilmington	70	11.555	48	9.115	118	20.670
Newbern	23	2.664	....	.....	23	2.664
Camden	22	2.170	....	.....	22	2.170
Beaufort, N. C.	4	473	....	.....	4	473
Washington	9	2.118	....	.....	9	1.118
Plymouth, N. C.	12	1.205	....	.....	12	1.205
Charleston	161	52.414	142	44.205	303	96.619
Georgetown, S. C.	2	297	....	.....	2	297
Savannah	47	11.883	71	45.134	118	57.017
Key West	44	4.216	24	1.163	68	5.379

STATEMENT OF ENTRANCES OF AMERICAN AND FOREIGN VESSELS, ETC.—CONTINUED.

	American vessels.		Foreign vessels.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.
Appalachicola	10	2.965	14	9.231	24	12.196
Pensacola	2	337	....	.....	2	337
St. Augustine	....	.....	1	68	1	68
Mobile	40	11.914	112	84.106	152	96.020
Teche	2	904	....	.....	2	904
New Orleans	522	175.065	374	174.884	896	349.949
Cuyahoga	128	14.306	123	17.128	251	31.434
Sandusky	50	7.322	13	1.115	63	8.437
Detroit	79	5.651	384	48.479	463	54.130
Michilimackinack	18	1.603	10	1.230	28	2.883
Chicago	18	6.690	4	648	22	7.338
Galveston	1	93	9	2.894	10	2.987
Brazos St. Iago	2	401	4	283	6	684
San Francisco	140	47.950	355	82.914	495	130.864
Total	8.412	2.573.016	10.100	1.775.623	18.512	4.348.639

TONNAGE OF THE UNITED STATES ON THE 30TH OF JUNE, 1850.

REGISTERED TONNAGE.

Registered vessels employed in foreign trade ..... tons.		1.585.711 22

ENROLLED AND LICENSED TONNAGE.

Enrolled vessels employed in the coasting trade	1.755.796 42	
Licensed vess. empl. in coasting trade under 20 tons	43.027 86	
		1.797.824 33

FISHING VESSELS.

Enrolled vessels employed in cod fishery	85.646 30	
Enrolled vessels employed in mackerel fishery	58.111 94	
Enrolled vessels employed in whale fishery	.....	
Licensed vessels under 20 tons employed in cod fishery	8.160 34	
		151.918 63
Total		3.535.454 23
Registered tonnage employed in whale fishery	146.016 71	
Registered ton. employed other than in whale fishery	1.439.694 46	
	1.585.711 22	

DESCRIPTION OF TONNAGE.

Aggregate amount of tonnage of the U. States on 30th June, 1850		3.535.454 23
Whereof—		
Permanent registered tonnage	1.262.574 74	
Temporary registered tonnage	323.135 43	
Total registered tonnage		1.585.711 22
Permanent enrolled, and licensed tonnage	1.879.514 00	
Temporary enrolled, and licensed tonnage	20.040 71	
Total enrolled and licensed		1.899.554 71
Licensed tonnage, under 20 tons, employed in coasting trade	42.027 86	
Licensed tonnage, under 20 tons, employed in cod fishery	8.160 34	
Total licensed tonnage under twenty tons		50.188 25
Total		3.535.454 23

Of the enrolled and licensed tonnage there were employed in the—	
Coasting trade	1.755.796 42
Cod fishery	85.646 30
Mackerel fishery	58.111 94
	1.899.554 71
Of the registered tonnage, amounting, as stated above, to 1.585.711 22 tons, there were employed in steam navigation	44.942 25
Of the enrolled and licensed tonnage amounting, as stated above, to 1.899.554 71 tons, there were employed in steam navigation	481.004 65
Total tonnage in steam navigation	525.946 90

MERCHANTS' LICENSE LAW OF MISSOURI.

Owing to the great interest that has been felt in this case we desired to publish the opinions of all the judges at large; but, finding them too long for admission in our Journal, we have limited our notice of the case to the following statement of the pleadings and evidence which we copy from the opinion of Justice Ryland.

WAYMAN CROW, *et. al.*, Appellants,
vs.
STATE OF MISSOURI, Appellee. } On appeal.

The appellants (defendants below,) were indicted in the Criminal Court of St. Louis county, for dealing as merchants without taking out a license, as required by the statutes of the State.

The indictment contains six counts. The first charges that defendants unlawfully did receive for sale and unlawfully did deal as merchants in the selling of goods, wares and merchandise not the growth, produce or manufacture of this State, by then and there and on divers other days and times receiving for sale and selling as merchants as aforesaid, fifty yards of cloth, fifty yards of domestic, &c., &c., at a place then and there, and on other days and times occupied by them for that purpose, to divers persons unknown, without having any license, &c.

The second count charges the same facts as the first, with this exception, that it omits to state that the goods, wares and merchandise received and sold were not the growth, produce and manufacture of this State. The third count charges that the defendants did import into the State, and unlawfully receive for sale and unlawfully did deal as merchants in selling, at the place and on the days aforesaid, goods, wares and merchandise, (naming them) not the growth, manufacture or produce of this State, but of England, in Great Britain; which importing, receiving and selling were in the original packages, bales and forms, as imported from England. This count also states that the duties had been regularly paid to

the United States on the said goods, &c., without a license. The fourth count charges that defendants imported and received for sale, and sold on the days and times and at the place aforesaid, goods, wares and merchandise, the produce, growth and manufacture of New York, Pennsylvania, and other States of the Union, which selling was in the original packages, and also in broken packages, without a license.

The fifth count charges that defendants imported goods, wares and merchandise into this State from sister States, and received and sold the same as aforesaid in the original packages unbroken, in which they were received by wholesale without a license.

The sixth count is not materially different from the first. The defendants filed a demurrer to all the counts of the indictment. The demurrer was sustained to the second and third counts, and overruled as to all the others. A jury was then empanneled to try the issue on not guilty to the counts which had been held good on the demurrer. The evidence was as follows: The defendants at the time mentioned in the indictment were merchants, doing business in St. Louis, and received for sale at their store the goods, wares and merchandise mentioned in the indictment, in manner and form as therein charged, without a license. That all the goods, &c·, so received and offered for sale by defendants were imported directly by them into this State from other States of the Union and foreign countries, and were not the growth, produce or manufacture of this State, and that the defendants did exercise the business of merchants by selling the goods, &c., mentioned in the indictment, as charged in all the counts, except the second and third counts, and this was all the evidence.

The defendants then moved the court to give the following instructions to the jury, that "if defendants received for sale, and sold at their store in St. Louis, no other goods except such as were imported into this State by them, directly from other States of the Union, the jury will find for the defendants." This the court refused to give, and the defendants excepted. The defendants were found guilty. They afterwards filed their motion for a new trial, and in arrest of judgement, raising again the questions of the propriety of the conviction on the testimony and of the legal sufficiency of the indictment. The court decided both these motions against the defendants; they again excepted, and bring the case before this court for revision. A reversal of the judgment of the Criminal Court has been insisted on before this court, upon grounds radical and fundamental, looking to nothing less than the absolute nullity of the laws upon which the counsel for the State rely to uphold the indictment. The cause was first brought before this court at the October term, 1850, at which time it was ably discussed at the bar, and was decided by the court, a majority feeling themselves bound by a sense of duty to declare the indictment insufficient to sustain the judgment of the Criminal Court, the provision of the

statutes upon which it was found, being in their opinion unconstitutional.—Subsequently, a re-argument was asked for and obtained by the counsel for the State. This court being deeply impressed with the magnitude of the subject, and of the great importance to the State of coming to a right conclusion, at this present term, the cause was again submitted to the court on full written arguments by the respective counsel, and the whole field of the controversy once more carefully reviewed.

The Supreme Court reversed the judgment below and ordered the defendants to be discharged from the indictment; but owing to the nature of the several questions involved, and the conflicting views entertained by each of the judges, it is difficult to determine to what extent this vexatious subject has been settled, or how far the decision will affect the revenue of the State.

According to our understanding, the decision abolishes the ad-valorem tax on merchandize sold at retail; but recognizes the validity of the act passed 12th March, 1849, which provides for the collection "upon every merchant's and grocer's license" of a tax of 20 cents on every hundred dollars worth of merchandize received for sale, whether for wholesale or retail.

We had thought of reviewing the decision, but perceiving that it would require more labor than we can devote to that object, we must leave the task to others. We brought the subject before the country in the Feb. number, 1849, of the Western Journal, with a view to a reformation of the revenue laws touching merchants and merchandize. In preparing our views, as then submitted, we arrived at the conclusion that the license laws were in violation of the constitution of the State; and so far as it embraced the products of sister States, offered for sale in packages, bales, barrels, &c., we considered it in violation of the constitution of the United States; and our opinions on these points have ben confirmed by the able and, as we believe, unanswerable arguments of Justice Ryland.

MISSISSIPPI AND ATLANTIC RAILROAD.

In noticing the public works in Illinois, in the March number of the Western Journal, we remarked in connection with the Mississippi and Atlantic Railway, that "the legislature having refused to sanction the termini, the prosecution of the work will, as we suppose, be suspended until a judicial decision can be had on the right of the Company to proceed." This, in connection with cer-

tain remarks contained in the address of the President of the Terre Haute and Alton Railroad Company, published in our March number, is complained of by a friend of the Mississippi and Atlantic Railway as calculated to impair the confidence of the public in the right of that company to prosecute their enterprise by virtue of their association under the general law. If such should be the case, we can but regard what we have said and published on that subject, with regret; but, in reviewing the entire matter objected to, we find nothing which, in our judgment, can be tortured into an opinion on our part respecting the rights of the company. Nothing was more natural than to suppose that refractory owners of land would be found on the route who would contest the right of the company to condemn land without the sanction of the termini by the legislature; and we supposed that it would be the true policy of the company to remove every doubt as to their rights, before they commenced the work.

In that portion of the address of the President of the Terre Haute and Alton Railroad, which we published in the April number, he says, "The charter of the Terre Haute and St. Louis Railroad has been again vetoed by the voice of the same legislature, by a vote so decisive and in a manner so fortunate, as to preclude all hope of its ever being resuscitated, provided that we now make such an efficient commencement of the work upon our road as will amount to a sure guarantee of its early completion." Our object in publishing this address was simply to make known to our readers the steps that were being taken by that company towards the commencement of the work—we never imagined that we were making ourselves responsible as endorsers of the assertions or opinions contained in that document.

We have noticed this matter chiefly for the purpose of asserting the policy which we have adopted, as journalists, in reference to all works of public improvement. One of our most cherished objects in the beginning was to incite a spirit of public improvement throughout the valley of the Mississippi and to suggest the outlines of a plan that would constitute the basis of a general system—but we resolved never to oppose any work of improvement for the purpose of building up a rival. If the citizens of any part of the country desire to construct a railroad or other improvement, and are willing to devote their means and labor to its accomplishment, we say God speed. Allow all to exercise this privilege, and in time every part of this great valley will be supplied with commercial and traveling facilities adapted to the wants of each—unreasonable monopolies will be avoided, and the resources of every part of the country more fully developed. Acting upon this policy, we take no part in the contest between rival works in Illinois. As a part of a great system, we have frequently commended the line of improvement from Illinoistown to Terre Haute; and the necessity of this work, as a part of a general system for the West, is so

obvious, that we have never doubted, nor do we yet doubt, that it will be sooner or later constructed. We have never examined the authority under which the Mississippi and Atlantic Railroad Company are acting; but we have been informed that they are advised by eminent lawyers that they possess ample power under their present organization to progress with the work without further legislation—we trust this may be true. But in our opinion the people of Illinois would be benefitted by both routes; and if they are willing to invest their means in constructing them, so much the better for the State. We are much gratified to learn that the Mississippi and Atlantic Railroad Company are resolved on prosecuting that great enterprise. No one can doubt of the utility of the improvement, or that the stock will pay large dividends, although the Alton and Terre Haute road should be constructed.

DISCURSIVE VIEWS ON VARIOUS ÆSTHETIC SUBJECTS.

FROM THE GERMAN OF SCHILLER.

All the properties of things, by which they become æsthetic, may be brought under four different classes, which, according to their *objective* difference, as well as their different *subjective* relations, produce different kinds of satisfaction, affecting not only the *strength*, but also the *worth* of our passive and active faculties, and, touching the fine arts, are of extraordinary utility; namely, the *Agreeable*, the *Good*, the *Sublime*, and the *Beautiful.*

Among these the Sublime and Beautiful alone belong to Art. The Agreeable is not worthy of it, and the Good is at least not its aim; for the aim of Art is to please, and the Good, theoretical or practical, cannot, neither is it allowed to serve as a means for the indulgence of the senses.

The Agreeable is pleasing only to the Sense, and therein differs from the Good, which gives delight only to the Reason. The one pleases through its material quality, for only that which is material can affect the Sense, and the Perfect, which is Form, gives delight only to the Reason.

The Beautiful delights, it is true, through the medium of the senses, in which respect it differs from the Good, but it delights through its Form of Reason, in which respect it differs from the Agreeable. The Good may be said to occasion delight, by means merely of the Form *suitable* to Reason, the Beautiful by means of the Form *similar* to Reason, the Agreeable by means of no Form whatever. The Good is *perceived by thought*, the Beautiful *contemplated*, the Agreeable *only felt.* The first occasions

delight in the idea, the second in the observation, the third in the material sensibility.

The distinction between the Good and the Agreeable is manifest in a great degree at a glance. The Good expands our knowledge, because it creates and presupposes an idea of its object; the basis of our satisfaction lies in the subject, when even the satisfaction itself is a condition in which we find ourselves. The Agreeable on the contrary presents no knowledge whatever of its object, and its basis rests also on none. It is Agreeable only because it excites sensibility, and the idea of it disappears entirely as soon as we allay by thought the excitability of the senses, or even only produce a change upon them. A warm air is agreeable to a man who feels cold; but even this man will seek a cooling shade in the heat of summer. Yet in both cases, it may be maintained, he judged correctly. The Objective is altogether independent of us, and that which presents itself to us to day as true, judicious, reasonable, will also (provided we judged correctly to-day) appear to us in the same manner twenty years hence. Our judgment in regard to the Agreeable is changed as often as our condition varies in relation to its object. There is therefore no property of objects, except that which arises first out of the relation of an object to our senses—for the state of the senses is a necessary condition of the same.

The Good on the contrary is already good before it is conceived and felt. The property through which it pleases exists perfectly within itself, without the necessity of our subject, when even the satisfaction we derive from the same rests on a susceptibility of our being. It may therefore be said that the Agreeable *exists only, because it is felt;* the Good, on the contrary, *is felt, because it exists.*

The distinction between the Beautiful and the Agreeable, as great as it may be in other respects, is less manifest at a glance. The Beautiful is like the Agreeable in this respect, that it must always be presented before the senses, that it pleases only in the appearance. It is like it, further, therein that it neither creates or presupposes any knowledge of its object. But again, the Beautiful differs very much from the Agreeable, because it pleases through the Form of its appearance, not through the material feeling. It gives delight, it is true, to the reasonable subject only so far as the same is likewise sensuous; but is also pleasing to the sensuous only, so far as the same is likewise reasonable. It is pleasing not only to the individual, but to men in general, and it is sustained only by its relation to a sensuously reasonable being, yet it is independent of all empirical determination of sensuality; and it remains the same, even when the individual peculiarity of the subject varies. The Beautiful has also even that in common with the Good, wherein it differs from the Agreeable, and varies from the Good even in that respect, wherein it resembles the Agreeable.

In regard to the Good this point is to be understood, wherein the Reason distinguishes a fitness to its theoretical or practical laws. But there may be a perfect harmony of the same object with the theoretical Reason, and yet the practical may be in the highest degree antagonistic. We may disapprove the object of an undertaking, and yet admire the means used to obtain the object. We may despise the enjoyment in which the voluptuary indulges as the aim of his life, and yet praise his ingenuity in the choice of the means used, and the consistency of his principles. That which pleases us only by its form is good, and it is absolutely and without condition good, when its Form is also at the same time its Substance. The Good is also an object of feeling, but of no immediate feeling, as the Agreeable, and also of no mixed feeling as the Beautiful. It does not excite coveteousness as the first, nor inclination as the second. The pure idea of the Good induces only reverence.

After the determination of the lines of distinction between the Agreeable, the Good and the Beautiful, it is clearly evident that an object may be ugly, imperfect, yes, even morally worthless, and yet be agreeable, yet may please the senses; that an object may be revolting to the senses, and yet be good, may be pleasing to the Reason; that an object may be revolting to the inner being, according to the moral feeling, and may yet be pleasing in contemplation, yet be beautiful.

The cause of this is on account of the fact, that, among all these different representations, another faculty of the disposition of the mind, and one of a different order, is interested.

But the classification of the æsthetic predicates is not yet herewith exhausted; for there are objects which at the same time that they are ugly, repugnant and horrible to the senses, unsatisfying to the understanding, and indifferent in a moral estimation, are yet pleasing, yes, pleasing in a degree so high, that we gladly sacrifice the gratification of the senses and of the understanding, to procure for ourselves the enjoyment of the same.

Nothing is more charming in nature than a beautiful landscape in the crimson glow of evening. The rich variety and the gentle outline of images, the continuously changing play of light, the slight veil which envelops the distant objects—all unite together to delight our senses. The soft murmur of a waterfall, the trilling notes of the nightingale, an agreeable music, increase our pleasure. We are dissolved in a repose of sweet sensibility, and while our senses are being touched most agreeably, by the harmony of colors, of images and of tones, the disposition of the mind is delighted on a gentle and high-spirited train of ideas, and the heart on a stream of feelings.

Suddenly a storm arises which darkens the sky and the whole landscape, which overwhelms or silences all other tones, and robs us immediately of every pleasure. Pitch black clouds overcast the horizon, deafening claps of thunder descend, flash follows flash,

and our sight and hearing are disturbed most disagreeably. The glare of the lightning makes the horrors of night only more visible around us. We see how the lightning strikes; yes, we begin to fear that it might also hit us. Nevertheless we believe we have rather won than lost by the exchange, except those persons whom fear robs of all freedom of judgment. This frightful spectacle that repels our senses, in one respect, attracts us powerfully, and we linger by the scene with a feeling, which indeed cannot with propriety be called enjoyment, but which is far preferable to enjoyment. But now this spectacle of nature is rather destructive than good (at least it is not necessary to think on the utility of a thunder storm, in order to find satisfaction at this appearance of nature,) it is rather hideous than beautiful, for darkness as a deprivation of all representations which light furnishes, can never be pleasing, and the sudden air-concussion by means of thunder, as also the sudden air-illumination by means of lightning, oppose a necessary condition of all beauty, which harmonizes in its nature with nothing abrupt, nothing powerful. Farther, this appearance of nature is rather painful than pleasing to the naked senses, because the nerves of the sight and of hearing are by turns painfully strained and excessively slackened, by means of the sudden alternation of darkness and light, of the crash of thunder and stillness. Yet in spite of all these causes of dissatisfaction, a thunder storm is, for him who does not fear it, a fascinating scene.

Farther. In the midst of a green and smiling plain, let a wild barren hill be projected, which intercepts a part of the view. Every one would wish this heap of earth away, as something that deformed the beauty of the whole landscape. Now suppose this hill became higher and higher, without being changed in the least degree in regard to its form in other respects, so that the same relation would be sustained between its breadth and heighth, also even its greatness. In the first place, on that account, the dissatisfaction will increase, because the increasing greatness of the hill makes it only more remarkable, only disturbs you the more. But in continuation let the size of the hill be increased more than twice the height of a tower, then the dissatisfaction occasioned by it is imperceptibly lost, and gives place to feelings altogether different. Finally let the hill be raised up so high, that it is almost impossible to embrace it at a glance, then we prize it more than the whole beautiful surrounding plain, and would not, without regret, exchange the impressions which it makes upon us, for any other even equally beautiful scene. Now suppose this mountain to assume such an inclination, that it appears as if it would every moment plunge down, then the former feeling will be mingled with another; horror will unite itself with it, yet the object itself becomes thereby only more attractive. But suppose this inclining mountain were sustained by another, then the terror would be lost, and with it a greater part of our satisfaction. Suppose further that four or five

other mountains were placed near by this, each one of which was a fourth or fifth part lower than the next preceding; then the first feeling with which we were influenced by its greatness, would become sensibly weakened. Something similar would take place, if the mountain were divided into ten or twelve equal formed knobs; also if it were adorned by artistic improvements. Now in the first place we have made no other experiment with this mountain, except increasing its size, leaving it, in other respects, altogether as it was, without changing its form, and by this single circumstance from an indifferent, yes, even repugnant object, we have changed it into an object of satisfaction. By the second experiment at the same time that we have changed this great object into one of terror, we have thereby increased the satisfaction derived from its aspect. By the other experiments which we have tried, we have lessened the horror-stirring peculiarities of its aspect, and thereby weakened the pleasure. We have lessened the idea of its size *subjectively*, partly because we have divided the attention of the eye, and partly because we produced a measure for the same, by placing the smaller mountains at its side, so as to command the size of the mountain more easily. Magnitude and terribleness may also, in certain cases, in themselves alone, serve as a source of pleasure.

In the Grecian mythology there is no more frightful, and at the same time hideous image than the Furies or Erinnys when they arise from Orcus to persecute a criminal. A horrible, distorted countenance, haggard figure, a head covered with serpents instead of hair, revolt so much against our senses, as to offend our taste. But when this monster is represented as it persecutes the matricide Orestes, when it swings the fire brand in its hands, and hunts him restlessly from one place to another, till at last when it has reconciled enraged justice, it disappears into the depths of hell, we linger with an agreeable horror at the spectacle. But not only the anguish of the conscience of a criminal, which becomes sensible to us by means of the Fury, even his disloyal action, the real act of a criminal, may be pleasing to us in its representation. The Medea of the Grecian tragedy Clytemnestra, who murdered her husband, Orestes who killed his mother, fill our nature with a shuddering enjoyment. We discover even in common life that objects which are indifferent to us, yes even repugnant and revolting objects begin to interest us, as soon as they approach either the monstrous or the horrible. A man who is altogether common and insignificant begins to please us, as soon as a strong passion which does not exalt his merit in the least degree, makes him an object of fear and horror. So also a common object, one of which nothing can be said, becomes a source of enjoyment to us, as soon as we increase it until it threatens to surpass our powers of comprehension. An ugly man becomes uglier yet by rage, and still in the outbreak of this passion, provided it is not in a ridiculous man-

ner, but eventuates in being frightful, at that moment, he becomes invested with an extraordinary charm. This remark is applicable even to animals. An ox at the plough, a horse at the cart, a dog, are common objects; but if we excite the ox to battle, if we put a gentle horse in a rage, or if we see an infuriated dog, then these animals become exalted to æsthetic objects, and we begin to observe them with a feeling that borders on pleasure and esteem. The general inclination of all mankind for what is passionate—the power of sympathetic feeling which draws us *in the Nature* at the sight of grief, of alarm, and of horror, which has so much charm for us in Art, which allures us to the theatre, which gives us such a relish for the delineation of great misfortunes—all these things are evidence of *a fourth source of enjoyment* which neither the Agreeable, the Good nor the Beautiful can produce.

All the instances above cited have something *objective* in the feeling which they excite within us common with others. In every case we receive the image of something "that either overcomes, or threatens to overcome our sensuous power of comprehension, or our sensuous power of resistance," while at the same time this pre-eminence does not drive either of the two powers to a depression, neither discourages within us the effort at comprehension or of resistance. A multifarious peculiarity is there presented to us, which drives us to the limits of our faculties of comprehension, in order to embrace them together in unity. A power appears before us here, against which our own disappears, but with which we are compelled to assimilate. Either it is an object which presents itself to, and immediately withdraws from our faculties of comprehension, and arouses an effort to obtain the image, without permitting an entertainment of a hope of satisfaction, or it is an object which appears to rise up in hostility against our existence, challenges us out as it were to battle, and makes us apprehensive about the issue. The same effect is also visible on the faculties of sensibility in all of the above cited cases. All put the disposition of the mind in an uneasy commotion, and on a stretch. A certain earnestness, which may amount to solemnity, takes possession of our soul itself, and while it shows significant traces of anguish in the sensuous organs, plunges the meditating spirit back within itself, and appears to rely on an exalted consciousness of its own self-sustaining power and worth. This consciousness must by all means be overpowering, when the grandeur or horror of it is worthy of æsthetic merit. Now because the disposition of the mind is inspired by such images, and feels itself exalted above itself, we denote it with the name of the *Sublime*, although the object itself objectively, presents nothing sublime, and it were more becoming to call it *exalting*.

When an object may be said to exalt, it must be placed in opposition to our sensuous faculties. But in general we may allow two different relations which the thing may bear towards our sen-

suality, and conformably to these there must be also two different kinds of resistance. Either it is to be viewed as an object of which we would procure a knowledge for ourselves, or contemplated as a power with which we compare ourselves. According to this division there are two kinds of the Sublime, the Sublime of Knowledge, and the Sublime of Power.

But now the sensuous faculties contribute nothing farther towards knowledge, except that they take up the material furnished, and place the manifold variety of the same together in space and time. It is the business of the understanding, and not of the power of the imagination, to separate and classify this manifold variety. There is a *heterogenousness* for the understanding alone. There is a *homogeniousness* for the power of imagination (as Sense) only, and there is also merely the abundance of homogeniousness (the quantity not the quality) which may be distinguished by the sensuous comprehension of appearances. Moreover should the sensuous faculty of perception sink under an object, it must be because the object overwhelms the power of the imagination by means of its quantity. The Sublime of Knowledge is consequently dependent upon the number or greatness, and may therefore also be called mathematical.*

[From the Ciceronean Magazine.]

EARTH'S HIGHEST STATION ENDS IN "HERE HE LIES."

BY MISS M. B. A.

Nature is but a volume inscribed to Change. 'T is revolution all. Where'er through Nature's scenes we look, the lesson is impressed, of vanity and change. Decay and dissolution tinge with evanescence the fair visage of all sublunary objects. Change, as a lordly monarch, exerts an effectual and unlimited sway over earth's wide domain. Night, from her ebon throne, draws her sable mantle over creation's ample dome; and day in turn, sways the sceptre of light, in the expulsion of darkness.

Behold this orb, of whose empire we mortals boast; how marked by change! Summer, glad and beautiful, in the gay habiliments of fresh and exuberant nature, landscapes decked with flowers and green, soon lays on the shrine of Autumn her richest offerings, and, stripped of her insignia of gay but transient empire, yields the scepter and the realm to stern Winter, who founds the glory of his dominion in the conquest of all that Summer had fostered and loved. Heralded by the blighting frosts of Autumn, he comes, and soon

* See Kant's Criticism on the Power of Æsthetic Judgment.

embeds in snow and ice the fields and lawns arrayed in the rich luxuriance of prodigal Summer.

Thus change and revolution have diversified the history of the universe from Creation's birth, when first breathed o'er the chaotic profound the fiat of Omnipotence, rolling into sublime existence and harmonious revolution the wheeling planets, which float in the effulgence of a million suns; when change, the mistress of wonders, swept from the brow of sleeping eternity the pall of darkness. O change! whose mandates all obey; is man too the sport of thy fancy and the victim of thy power? 'T is even so. Though a sovereign prince, a being so august, so rich, so complicate, a bright miniature of etherial greatness, an heir of heavenly glory, a grand and noble "link in being's endless chain;" yet this "lord of creation," in all his magnificence of origin and destiny, is the child of weakness, and the sport of change. Soon must his royalty be laid in the dust. To him, whose fiery and impetuous thought grasps in a moment little less than the idea of the Deity, the narrow vault shall furnish a resting place, where all that is seen of him shall repose in forgetfulness. As all nature expires, so must man expire.

And is it true, that man, the noblest mechanism of God, is to pass so soon away? We must, alas! behold the throne as well as the hovel arrayed in the sack-cloth of morning. The king must relax from obedient nations his mighty sway. The sons of genius and of fame, from their more lofty eminence and firmer grasp of immortality, must descend to the grave. The daughters of beauty and loveliness, whose charms it were sacrilege to assail, must become food for worms. The votaries of wealth, refinement, and fashion, must all be leveled with the meanest slave. Nothing terrestrial can avert the gloomy, dismal end to which all are hastening. Nature recoils at its own destiny, and thus acknowledges an invisible Hand that disposes events.

O grave! how chilling the thought of thy future dominion. Art thou a ceaseless slumber? How vain, then, is ambition! Better to perish without a struggle. Why nerve every power to weave for mortality an immortal robe? How silly, too, is conscience! Its foolish whisperings bid me hope to live again. They have wrought me to yearnings for immortality, whose disappointment must be a second and more dreadful death. Ah! why this feverish longing to be something more than human? No, terrible grave! thou art the entrance to the land where this feverish being shall be unshackled and free. Then come, thou common lot of mortals! Thou hast no terrors for which thy deliverance is not a more than counterpoise.

HUDSON E. BRIDGE. HARRISON P. BRIDGE.

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REAL ESTATE Dealers, Auctioneers and Conveyancers, No. 123 Chesnut street, St. Louis, Mo. Real Estate sold on commission, at private sale, or auction. Also, Deeds of all kinds written, and acknowledgments taken. Maps of the city and additions, to be seen at the office, and information given free of charge. Surveying done promptly and correctly.

Glover & Campbell,

Late of Palmyra, Mo., Attorneys at Law,

SAINT LOUIS.

John C. Meyer,

Dealer in Hides, Leather, Oil, and Findings,

No. 88 North Main Street, St. Louis.

Charless & Blow,

NO. 70 and 72, Exchange Building, St. Louis, Mo., Importers and dealers in drugs, medicines, oils, paints, dye stuffs, perfumeries, window glass, glassware, &c.

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WHOLESALE and retail dealer and manufacturer of Cabinet Furniture, chairs, bedsteads, &c., Nos. 44, 46 and 48, Olive street, opposite the Monroe House, Saint Louis, Mo.

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Fashionable Styles of Goods,

In his line, for gentlemen's wear; and where he will be pleased to see his old friends and customers, and their friends with them; and assures those who may favor him with their patronage, that they shall receive his personal attention, and his best efforts to please. Very respectfully, your ob't servant,

J. G. SHELTON.

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October, 1850.

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D. D. PAGE, Treasurer,
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☞Particular attention paid to estimating on houses or steamboats. nov.

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Also, manufactures to order every article in his line, with despatch. Orders from abroad promptly attended to, and goods carefully packed. All goods warranted as recommended.

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ATTORNEY AND COUNSELLOR AT LAW,

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Chesnut Street,

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THE WESTERN JOURNAL,

PUBLISHED MONTHLY.

DEVOTED TO

AGRICULTURE, MANUFACTURES, MECHANIC ARTS, INTERNAL IMPROVEMENT, COMMERCE, AND GENERAL LITERATURE.

M. TARVER & T. F. RISK., Editors and Proprietors.

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The Western Journal is designed to embrace every subject connected with Agriculture, Commerce, Manufactures, Mechanic Arts, Mines, and Internal Improvement.

A portion of the work will be appropriated to Statistics, which will be collected and arranged with reference to the leading subjects contained in the respective numbers.

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VOL. VI. JUNE, 1851. NO. 3.

THE WESTERN JOURNAL,

OF

AGRICULTURE, MANUFACTURES, MECHANIC ARTS,
INTERNAL IMPROVEMENT, COMMERCE,

AND

GENERAL LITERATURE.

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CROSBY & NICHOLS, Boston,—Agents.

ST. LOUIS:
PRINTED BY MORITZ NIEDNER—OFFICE, NORTHWEST CORNER
OF CHESNUT AND THIRD STREETS.

1851.

PUBLISHED MONTHLY, AT THREE DOLLARS PER ANNUM, IN ADVANCE.

ENGLISH AND GERMAN

BOOK AND JOB OFFICE

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A. B. Lathrop & Co.,

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THE

WESTERN JOURNAL.

M. TARVER AND T. F. RISK, Editors and Proprietors.

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THE

WESTERN JOURNAL.

VOL. VI. June, 1851. No. III.

Article I.

COMMERCIAL REVULSIONS.

It is natural that recollections of the pecuniary misfortunes and sufferings which attended the commercial revulsion of 1837, should make the people of this country more vigilant in observing every important movement, whether political or financial, which threatens to affect the stability and healthy condition of commerce. The large excess of imports over the amount of exports, which was made known by the financial report for the year ending 30th June, 1850; the subsequent increase of importations over corresponding months of the preceding year; the rapid increase in the number of banksand of bank loans in connection with the spirit of internal improvement, which prevails in almost every part of the country, have produced serious apprehension in the minds of many that a revulsion, not less disastrous, perhaps, than that of 1837, is rapidly approaching. We have been attentive observers of all these facts, and notwithstanding they indicate a spirit of speculation and overtrading, yet we do not regard a serious revulsion as a necessary consequence. The present state of things has been compared to that which immediately preceded the revulsion of 1837, from which conclusions have been drawn, that a powerful reaction is inevitable; but there are many important facts distinguishing the present condition of the country from that which then existed.

The imports of 1836 exceeded the exports by $61,316,995, and for the four years preceding 1837, the excess of imports amounted to $129,744,198. The banking capital, in 1837, amounted to $290,772,092. whilst the amount of precious metals in the vaults of the banks was only $37,955,340, representing a circulation of $149,185,890,—the bank loans were estimated at $525,115,702. The population of the country was then about 15,000,000.

Now supposing other things affecting the commerce of the country to be equal, it will be seen, by contrasting these facts with those relating to the same objects in 1850, that there is but slight cause for apprehending a revulsion from any thing that has yet occurred.

In 1847 the excess of exports was $12,102,986, and the imports of the precious metals amounted to $24,124,289; in 1848 the excess of imports, including specie, was $966,797; in 1849 the excess of imports was $2,100,619, and in 1850, $26,239,598. Making the entire excess of imports for the four years ending 1851, only $29,306,914, against $129,744,198 for the four years preceding 1837.

In 1850 the banking capital in the United States was $227,069,-074; specie in the vaults, $48,636,367; circulation, $154,538,-636, and bank loans $411,961,948: showing a reduction of $63,772,091 in the banking capital, and of $113,253,754 in the amount of loans, while there is found to be an increase of $10,-681,027 specie in the vaults, and only an increase of $5,353,746 in the paper circulation.

In the mean time our population has increased about fifty per cent., and our manufactures have probably more than doubled.

But there are other facts which may be regarded as calculated to sustain our present prosperity, which did not exist in 1837. The separation of the banks from the government, and the payment of duties in cash, will tend to make the line of bank discounts more steady and prevent the sudden expansions and contractions of issues, which so frequently occurred in former times, and operate as a wholesome check upon excessive importations. Emigration has increased about four fold since 1837; and it is estimated that we receive from that source alone about $10,000,000 in specie annually: this may be properly regarded as a clear annual gain to the national wealth. The quantity of precious metals now in the country, must be at least double that of 1837; and although we anticipate a falling off in the production of gold in California, yet there is no reason to suppose that the decline will be so sudden as to produce any material effect on the financial condition of the country. Indeed, we regard the dangers involved in the discovery of gold in California, as passed; and the excitement having subsided, our people, especially in the West, have become better contented, than formerly, with the advantages of a location east of the Rocky mountains. No one expects an increase in the productions of the California mines; and few regard the influx of gold from that quarter as calculated to affect materially the prices of labor or property; and, consequently, we are likely to escape the evils which were at one period apprehended from speculations induced by a redundancy of the precious metals.

There was an excess of imports over the exports each successive year from 1830 up to 1837, amounting, in six years, to $155,-477,062, and from 1833 to the date of the revulsion, an enormous amount of individual indebtedness was created, in almost every part of the country, growing out of speculations in lands, town and city lots, negroes and other property, presenting a state of

general embarrassment, to which the present scarcity bears no comparison. Banks were created, not for the purpose of affording facilities to the ordinary and legitimate operations of commerce, but for purposes of speculation, until entire communities became so completely involved, that in many instances their productive resources were totally inadequate to the payment of their obligations; —bankruptcy was the natural and inevitable result.

During that period, too, the duties on imports were undergoing a gradual reduction annually; every year increasing the advantages of the foreign manufacturers over our own feeble establishments, until they were almost entirely crushed. In the madness for trade and speculation, agriculture was neglected until we found it necessary to import bread from that country, to which we have always so anxiously looked for a market for our own surplus.

A careful comparison of the history of the six years immediately preceding the revulsion of 1837 with that of the last six years will, we think, satisfy any intelligent mind that there is at present no serious cause of alarm. For, if with the comparatively limited resources then possessed by the country, it sustained its credit through a period of six years of excessive importations, until the aggregate balances reached $155,000,000, need we apprehend any serious inconvenience from our present condition?

But while we regard the present financial condition of the country as being sound and eminently prosperous, we perceive symptoms indicating a spirit of speculation which, if not watched and guarded against, threatens to produce a state of embarrassment calculated to check our progress, at least for a season. The great number of new banks which have been recently established in the eastern States, is, in our opinion, the worst symptom of the times. We see it stated, on what we deem good authority, that the increase of banking capital this year, in New York alone, will amount to $10,000,000; and it is probable that in all the States the increase during the same period may amount to $25,000,000. We are not aware of any new developments in the resources of the eastern States that demand so large an augmentation of their banking facilities, and conclude that many of these institutions have been created, in part, for the purpose of sustaining, for a time, a state of local indebtedness, which has already become burthensome; and, in part, for purposes of speculation. It remains to be seen how far the principles involved in the free banking system will operate as a check to the evils incident to excessive banking. We regard banks, when established for the purpose of relieving a community from indebtedness, as the most certain means that could be devised of augmenting the evil; but their creation is still more to be deprecated when established with a view to speculation in unproductive property.

Another symptom to be deprecated is exhibited in the traffic, almost everywhere going on, in unimproved & unproductive real estate.

Debts incurred on account of real estate with a view to its immediate improvement, may be regarded as legitimate; but when purchases ere made solely on speculation, debts are created without a corresponding increase, and, indeed, without any increase whatever in the wealth of the country; and it may happen that a community may become profoundly involved in debt and a large proportion of its members ruined, without adding anything whatever to the quantity or productiveness of its property. Among the causes which conspired to produce the revulsion of 1837, there was none, perhaps, more mischievous than speculation in unproductive real estate. A community, comparatively free from local indebtedness, cannot be greatly affected by commercial revulsions. The profits of land and labor may be reduced for a time; but the people, if free from debt, are generally left in the full enjoyment of all the substantial comforts and conveniencies to which they have been accustomed, and, at most, experience but a temporary check to their prosperity. But it is far otherwise when the local indebtedness is large. In that case, so soon as the price of property and the profits of labor begin to depreciate, the community become panic stricken; creditors become importunate; confidence is destroyed; and credit being no longer available, the necessity of realizing reduces the prices of property far below its ordinary standard, and thus a reaction, taking place at a remote point, gains force as it progresses, until like a tornado it sweeps over the land, prostrating in its course all except such as may have possessed sufficient fortitude to resist the temptations and influences of the times.

The policy of prosecuting the various schemes of public improvement, which have been projected within the last two or three years, is intimately connected with the subject under consideration; for, although they are legitimate objects of investment, yet, if it be true that the country is in imminent danger of bankruptcy, as some have supposed, prudence would dictate the abandonment or suspension of these projects until the storm shall have passed and the country restored to a state of prosperity. It is doubtless true that works of public improvement cannot be carried on extensively in any country, at any time, without affecting commerce and, in some degree, every department of industry; nor can the introduction of labor saving machinery or other improvement in the arts take place, without producing a change which operates injuriously, for a time, to some departments of industry. But such considerations cannot be allowed to obstruct the progress of the age in the arts of civilization. It is our true policy to press forward to the extent of our capacity; and the main point to be observed is, that we shall not undertake more than can be conveniently accomplished in the time proposed. Railroads and other artificial facilities of transportation and traveling, have become objects of necessity; and the inhabitants of any country who would postpone the commencement of such works, until a season when no danger

or inconvenience arising from their prosecution could be imagined by timid and cautious minds, will remain destitute of their benefits to the end of time. There are many individuals in every community who, like the sluggard, always imagine that "there is a lion in the path" that leads to the attainment of great objects, and, lacking courage to move forward themselves, endeavor to alarm others by depicting difficulties and dangers which have no other existence than in their own imaginations.

We have noticed what we regard as the most dangerous symptoms of a commercial revulsion; and, while we admit that if these symptoms remain unchecked for an indefinite period, they must prove fatal to our present prosperity, we, nevertheless, believe that it would be difficult to recur to a time in the history of this country, when its capacity for accomplishing great works was greater than at present.

The unqualified expression of this opinion may be regarded by some individuals, as imprudent at a time when strong symptoms of speculation are observable in many parts of the country; and when, too, the excess of imports continues to be augmented. But we regard those who endeavor to inspire the minds of the people with apprehensions of immediate ruin, as having mistaken the means of preventing the evils which they desire to avoid; for, whilst overwrought pictures of danger are disregarded by the shrewd and more daring portion of the community, they tend to prevent prudent and timid individuals from investing their means in enterprises, calculated to develop the resources of the country. The surest method by which overtrading and speculation can be prevented, is to encourage the employment of capital in productive branches of industry; for in no other way can the prices of property and labor be so regulated, as to bear a just and permanent relation to their true value.

Uninterrupted prosperity for a few years in succession, has uniformly, in this country, been followed by a revulsion more or less disastrous. And not comprehending the true causes which produce this result, or unwilling to admit their own indiscretions, those who suffer most, generally attribute their misfortunes to the policy of the Government. It cannot be doubted that there is a lack of wisdom in the national legislature, as well as amongst the people; and every branch of industry being more or less affected by legislative action relating to foreign commerce, it requires a high degree of intelligence and sagacity on the part of the statesman to foresee the more distant effects of any law designed to regulate trade. But this prominent feature in the history of American commerce and finance, is derived from the economy and habits of the people—formed with reference to their social condition and the abundant resources of the country which remain undeveloped—rather than from legislative action.

Perhaps no other people profit so little by practical illustrations

of the fundamental principles of political and individual economy, as do the citizens of the United States. An individual labors with moderate success for many years, and, by investing his profits in productive property, gradually increases his wealth: during this period he will make no investment in property, unless convinced that the profits will be certain, and it is dificult to draw him into any kind of enterprise, where the profits depend on contingencies. But should a few years of unusual prosperity occur, he will abandon the principles, to the observance of which he owes his success, and become a speculator. He discovers that town lots and unimproved lands are advancing in price; and, actuated by a desire to grow rich suddenly, it would seem that the teachings of experience and observation are obliterated from his memory, and he rashly hazards the acquisitions of many years in the purchase of property which yields no revenue, and at prices far above the nominal value at which it was formerly estimated, even by himself.

Another abandons his farm or workshop and becomes a merchant; and, finally, the idea of accumulating wealth by *purchasing*, instead of producing it, becomes prominent in every mind. While debts and the expenses of living rapidly increase, production as rapidly declines, until individual credit is brought into requisition to supply the deficiencies; but, this expedient failing, banks and other corporations are created as the last desperate effort to sustain, for a season, a state of things now rapidly drawing to a fatal conclusion.

In treating this subject, we have aimed to state the facts fairly; for, be the condition of man whatever it may, he cannot be benefitted by misleading his judgment. We have endeavored to show that, while there is no serious cause of alarm, yet there is reason for the exercise of more than ordinary caution. The eastern States have enjoyed an unparalleled degree of prosperity through a period of many years; the development of the resources of the South and West, which in times past contributed to their wealth, begins to act in another direction; and they now find it necessary to adopt artificial means to sustain their controlling influence over the industry and commerce of the nation. In this they are struggling against natural laws, which must prevail in the end; and a reaction in their financial condition may be regarded as an inevitable consequence. Such an event could scarcely happen there without producing a temporary check in the West: but if we look well to our own condition and avoid the creation of debts beyond our certain means of payment, we shall escape the misfortunes which usually attend great commercial revulsions. In the mean time let us encourage the establishment of manufactures and the opening of mines; for upon these pursuits our agriculturists must finally rely for a market. They constitute the true and only solid foundation of our commercial independence, and will serve to protect us against the revulsions of other countries.

Article II.

INAUGURAL ADDRESS OF JNO. AUG. WILLIAMS, A. M.,

PRESIDENT OF CHRISTIAN FEMALE COLLEGE, DELIVERED BEFORE THE BOARD OF TRUSTEES, AT HIS INSTALLATION, IN THE TOWN OF COLUMBIA, BOONE COUNTY, MISSOURI, APRIL 7TH, 1851.

Among the many improvements that distinguish the present age, that which has been made in the *Science of Education*, is one of the most important. Since the revival of Letters indeed, the acquisition of useful and polite learning has been the employment of the more favored youth, among all civilized nations; and now an education is regarded as essential to the happiness of every individual. Still, it is a recent inquiry which has sought after the best means of enlightening and developing the mind, and comparatively modern taste or policy has elevated the office of Instructor to the rank of a learned profession.

Such, however, have been the circumstances of the American citizen, particularly in Western or younger States; so absorbed has he been in the settlement and cultivation of a rich and extensive territory, that he has, in a great measure, failed to reap or to appreciate those advantages, which have resulted from improvements in this interesting department. Education is, consequently, trammeled with much error; error, which philosophy and enterprise have elsewhere discovered and corrected. Although a zeal, a liberality, in behalf of this cause exist in many portions of our own land, worthy indeed, the imitation of any people, yet, unfortunately, this zeal is often found to espouse the most fatal errors, and this liberality to be successful in their support.

It may not be improper, on this occasion, to advert, in a brief and familiar manner, to some of these evils, and to intimate, as we proceed, that remedial course we design to pursue in this, our young, and, I trust, our favored Institution.

In this practical, *matter-of-fact* age, nearly everything is estimated according to its *pecuniary advantages*. Office, honor, skill, and reputation, are sometimes valued solely in consideration of the annual amount which they secure to the possessor. The advantages of scholarship, in the estimation of some, indeed of many, consist in the increased facilities they afford in the accumulation of *wealth*. Even the rudimental key—reading, writing, and calculation—is desired, not because it opens to the student the rich stores of intellectual treasure, but because these simple, yet invaluable attainments are necessary to render him an accomplished *business man*; to make him familiar with *forms*, *prices-current*, and *commercial details*. Even science and literature are sometimes considered merely as useful instruments in the field

of profitable discovery, or in the department of mechanical invention; these often bear a mercantile value, computable in dollars and cents—the great exchangeable representative of human worth, wants, and opinions.

As an illustration of the nature and tendency of this popular notion, we might remark that those distinguished philosophers—Fulton, Franklin, and Morse—while eminently conspicuous in the walks of science, and deservedly esteemed for many excellencies of character, moral and intellectual, have a fame awarded them at this day, which few of their contemporaries have received; not so much in consideration of the *moral benefits* which have accrued to society from their labors, but rather, because their several inventions have filled the coffers of government, have increased the revenue of the nation, and replenished the purse of the citizen. The monuments which these celebrated men have erected for themselves—the rod, the steamer, and the telegraph—will, doubtless, remain imperishable, when the labors of a Howard, a Dix, or a Mathew, shall have been forgotten.

The influence of this notion is most deleterious. It sinks the intellectual into the commercial character; it degrades scholarship into a *lucrative accomplishment;* it converts a laudable ambition into a sordid avarice; and makes reason, taste, and fancy subservient to the petty schemes of a selfish aggrandizement.

So true is it, that almost everything bears a specific value, determined by *gold*, and expressed in the denomination of the *Federal Table*, that even the dialect of the counting-room has become applicable in the definition of moral and intellectual subjects. The term *worth*, for instance, which once expressed the price of merchandize, is now used interchangeably with merit, or moral excellence; and *talent*, which formerly designated a certain amount of *money*, is now expressive of a certain amount of *intellectual ability*.

Truly, we live in a *golden* age!—not like that which the poet's fancy has described, when man lived supremely blessed, amidst the tranquil scenes of innocence. simplicity and bliss, where every affection of the heart, and faculty of the mind was pure and vigorous, and found its proper exercise and gratification in the objects which surrounded him; but we live in an age when all our hopes and fears, our tastes and desires, our energies of soul and body, are too often concentrated in the miserable pursuit of a gilded phantom. As a people, we have, like Israel of old, turned to the worship and service of a splendid idol, at the very moment when the God of Science was communing most freely with us. We have decked the *golden calf* with laurel snatched from the brow of the scholar and philanthropist—thus adorning the object of our idolatry with the spoils of literature, and often of christianity.

No wonder then, that the popular view, with respect to EDUCATION partakes so largely of this pecuniary character, and that

consequently, much that renders learning the noblest of acquisitions is overlooked. No wonder, that the highest and best attainments of mind are depreciated, and the cultivation of a delicate taste, a logical discrimination, and a refined fancy is neglected. No wonder that the statesman so often gives place to the demagogue, the economist to the shrewd speculator, and the philosopher to the inventor of patented machinery. No wonder that banking houses are more numerous than colleges—that more tickets are sold at the lottery table than at the door of the lecture room. No wonder that salaries are more desired than wreaths of laurel, and that there are more adventurers to El Dorado, than pilgrims to Mount Parnassus!

Were we, however, to conform to the customs of the age, in the calculation of the value of an education, we might find sufficient reasons for regarding it as pre-eminent with respect to its actual *pecuniary advantages.*

A sound, rational education is, emphatically, the poor man's wealth, the orphan's best legacy; a rich, imperishable legacy, which a youth of industry never fails to bequeath to manhood. It is a *capital* into which time, health and energy, are always easily convertible. In the language of political economy, capital is any material or element whatever, which, when combined with the requisite labor, will yield the comforts or elegancies of life. Uncultivated lands, hoarded coin, unexplored mines, are, in fact, utterly valueless in this isolated and passive condition. But they become the resources, the wealth of a nation, when married to human industry. It is, likewise, an established principle, that in order to determine the intrinsic value of any thing that comes under this denomination, we do not apply the ordinary rules of mensuration alone, but we look likewise, and chiefly, to the industrial products, as the fair exponent of its capital value. We thus compute the value of a section of land, not by ascertaining its area in roods and acres, but by looking at the annual harvest returns which an average amount of industry will produce. In fine, that is the most valuable species of capital, which, with any given amount of labor, will yield the largest per centum of profitable result. A consideration is always paid to any peculiarity in its nature or circumstances, which may affect its intrinsic value—as its liability to loss or injury.

To apply these principles to the subject before us: Knowledge, agreeably to the language of this practical and pecuniary age, is a productive capital, an immaterial stock, capable of yielding a certain amount of profits, when combined with the requisite labor. To estimate the commercial value of a polite and finished education—such as may be attained by young gentlemen, and, I might add, young ladies, in our universities and colleges—we are authorized by the spirit and custom of the age, to look at the usual

exponent of the capital value, the final results of such an education, when combined practically with industry.

The young man who can earn a salary of five hundred dollars, by the exercise of any particular talent or accomplishment, is really the owner of as much productive stock, as he who can create but the same value by the cultivation of the soil, or by the sale of merchandize. The civil engineer, who receives one thousand dollars for the survey of any work of internal improvement, is in fact a *capitalist* to the full amount of that sum of which one thousand dollars is the interest: that is, he is the owner of a productive stock worth nearly *twenty times* that amount; a treasure, too, which moth cannot corrupt, which rust cannot consume, and which thieves cannot break through and steal; an estate unexposed to bankruptcy, mortgage, or assessment. The lawyer, the physician, the author, are all capitalists of this character, wealthier too, than the merchant or the farmer, who, by combining his labor with merchandize or lands, receives but the same amount of gain per annum. I say *wealthier*, because the clerk, for example, without money or landed estate, by a proper use of his intellectual capital, may earn as much as the stockholder with ten thousand dollars; and, moreover, by this very use, *enriches*, rather than *impoverishes* his stock. Besides, it is above the reach of floods; it is beyond the ravages of pestilence; fire cannot consume, nor bankruptcy affect it.

Hence, a parent cannot leave to his child a better legacy than a thorough education; for he thereby entails upon him an estate of which death alone can divest him. A moderate sum, judiciously expended, will, by securing to him the advantages of scholarship, endow him with a fortune which the sharper may covet, but which he can not take from him.

This view of the subject seems to possess a peculiar applicability to the circumstances and temperament of woman. The indigent young man, who must rely on his own exertions for a maintenance, may elect a trade, a profession or an enterprize that will eventually secure to him honorable independence. His iron nerve, his hardy frame, and resolute energy, are natural endowments that already render him a capitalist, and which especially qualify him with the aid of a frugal and discreet policy, to pursue any of the branches of manly industry with success. But it is far different with the young woman, whom adversity has exposed to want; with the orphan girl, who must become the architect of her own fortune. Far different is his condition from that of the mother widowed in her youth, and appealing in her desolation to the sympathies, and often to the charities of a selfish world, for protection and support. She must grow familiar with the graceless forms of poverty; near her humble abode beggarly need and temptation must ever linger! The avarice of man has claimed and appropriated all the avenues to wealth, as well as to fame; and she who was made to share his

glory as a companion through life, often finds, when too late, that even her subsistence is the result of her dependence, and that, as an isolated being, she must claim from humanity as a boon, that support which she would gladly have earned as a recompense.

Instances are too common even in our own land, where young women have been suddenly thrown upon a strange world, without fortune, without friends, and what is infinitely worse, without the spirit or the means of self-reliance, which a consciousness of their own strength and qualifications might have supplied. In such a crisis, the needle becomes a daughter's only staff, for an imperfect education has left her without a single accomplishment upon which she could lean for support. No trade, no profession, no employment but this, is hers. Her hard earned gains seldom enable her to indulge in that recreation essential to health, and she soon perishes from the earth, a martyr to a noble but misdirected industry.

Why may not a new circle of industrial pursuits be devised, adapted to the taste and genius of woman? Why may she not preside over some of the elegant and more useful arts of life? Why may we not allot to her some space in the great commercial, mechanical or professional theatre, now appropriated exclusively to the ambition or the avarice of the sterner sex? Surely, there is much she might perform, yea, much she would rejoice to perform, useful to her race, honorable to herself, entirely compatible with the delicacy of her nature, and consistent with her domestic relations, but for the deficiency of her attainments; but for that *monopoly* which vests in man by virtue of his superior education.

It may be that ancient chivalry tended to ameliorate the condition of woman, by anticipating and providing for all her wants, as well as by protecting her from injury and insult. But modern policy, by restricting her education, by closing against her all the avenues to wealth, has *incapacitated* her for self-maintenance, and made her dependence a matter of necessity. That service which was originally rendered as a graceful compliment to her worth, when her ignorance and weakness were unavoidable, is now often bestowed as charity, for which she must be dependent—at a time too, when a sound disciplinary Education might soon qualify her, in every important particular and for every possible crisis, for the enjoyment of all the blessings of personal citizenship and independency.

I ask for no re-organization of society, no material concessions from man, no sacrifice of duty or delicacy on the part of woman, in order to render her thus comparatively independent amid all the vicissitudes of life, and under every dispensation of fortune. All the virtues which are valuable in practical life are already hers. With many of them she is more liberally endowed than her companion. Her industry is systematic and untiring, her energy is easily concentrated, her talent is versatile; she is patient, ingeni-

ous, frank, and discreet. These attributes, while they render her the proper guardian of her family, would, with the requisite *attainments*, eminently qualify her for the task of self-maintenance, when necessity throws her, as it often does, upon her own individual resources. She is, however, in many cases, utterly destitute of those acquisitions, which render these virtues profitable in the ordinary sense of the term. They are jewels, which indeed brighten the links in her chain, but which alone cannot ransom her from her bondage-like dependency.

I repeat, I would not see the subsisting relations between the sexes disturbed; nor do I desire to see woman forsaking her proper sphere, and claiming political honors or wielding political influence. But I do ardently desire to see her well qualified by a rational Education, for any destiny that may await her in life. I would not have her, in all respects, independent of her companion, much less of society; but so educated, that in every possible emergency she may live happy, useful and honored; unexposed alike to the sting of poverty and to the stain of disgrace; able alone to maintain herself, to educate her family, and to honor and bless her race by useful works of piety and love—not that an isolated position is more conducive to her happiness, or more favorable to her usefulness, but because every woman, at some period of her life, may have to assume its responsibilities. Her helplessness, her absolute dependence, in such a crisis, must otherwise subject her to the will of others, and this constitutes what I mean by her bondage.

Every daughter, therefore, should be so trained in the *domestic school*, so taught in *useful* and *substantial knowledge*, so habituated, in early life, to the virtues of *self-reliance*, *self-denial* and *economy*, as to be able in the great drama of after life to find in the energy of her character, and in the resources of her mind, that independence, that honor and that happiness, for which she is now, in most cases, absolutely dependent on social connexion. An entailed fortune, an extensive relationship, an *advantageous* matrimonial alliance, are not sufficient guarantees that she whom you now maintain with a fond and munificent hand; whom you have adorned with light accomplishments; whom you have educated for the brilliant circle of the queenly station, will not some day be a lonely tenant in the vale of poverty, whose only legacy, the fragments of a brilliant, but now useless education.

If there be on earth an affecting instance of helpless wretchedness, it is when unfortunate woman, in the garb of virtuous poverty, kneels at the feet of a cold and selfish world, a suppliant for honorable, yet almost profitless employment. Dependent as a citizen,—yet responsible, it may be, as a parent; anxious from affection, yet unable from necessity, to earn that subsistence, which a refined and generous nature demands. Christianity and chivalry, in their ministrations of love, may spread over her pathway the

radiance of hope, the transient sunshine of joy; but the heart may feel a thousand wants, which charity can not anticipate—aspirations which the most generous chivalry cannot satisfy. There are flowers which must scent the humblest walks of life, whose beauty and whose sweetness must nourish the soul. Sympathy may brighten, but it cannot produce them; they must spring, if they spring at all, from a cultivated heart, and an enlightened mind—deriving their lustre, beauty and sweetness, from woman herself. Her fortitude may sustain her in want; her piety may lean, with the beautiful confidence of Faith in the Unseen Hand for support, and find therein protection, which she may have lost in man; the industry that expands her energy and consumes her life, may give unrecompensed employment into her hands, and thus she may sometimes find in the inherent *virtues* of her character, those resources, which may sustain her under ordinary privations: but her fortitude, her faith, her energy, can never compensate for a neglected mind, or a neglected heart. Untaught and untrained, doubly afflicted with the curse of want and of ignorance, she soon sinks to the earth, and often loses in death or abandonment, that sensibility and those aspirations, which, though originating in her disposition, find their only exercise and enjoyment in intellectual pursuits, or in enlightened moral enterprise.

How important, therefore, for Woman, is a practical Education! Her glory and her happiness are dependent upon it. We ask it for her as a charity which humanity should grant, because it alone must be her support and independence, in the day of her adversity, when, as a widow or as an orphan, she takes her disconnected position on the stage of life. We claim it for her, as a right, which justice must acknowledge, for her highest happiness and usefulness are inseparably connected with it. In her behalf, we appeal to your affections as parents, to your pride as citizens, to your chivalry as men, to unbind the shackles which fetter her to a dependency almost servile, and by a liberal and rational training, elevate her to that influential social position, to which her equal intellect and more resplendent virtues justly entitle her.

But, it is sometimes affirmed by those who would disparage the intellectual capabilities of Woman, and who would consequently limit her Education to a few flimsy accomplishments, that her inferiority of mind, and the comparative weakness of her frame, determine at once her relations to society, and attach her to man, as a mere dependent; that he is, by the constitution of society, and the appointment of his Creator, her natural counselor, champion and *lord;* that consequently science, literature, and the arts, are his peculiar inheritance, which she, as a satellite may indirectly enjoy, receiving and reflecting a borrowed splendor. But there is in fact no such relationship as this suggested, either by nature or by Revelation. True, it is a beautiful arrangement that makes society, both national and domestic, the result of a combination of

the various and opposite qualities that distinguish the sexes; yet it must be borne in mind, that it is a mutual affection, and not the *weakness of woman*, that is the bond of this social union. Her heart prompts her to lean on man, not from a selfish policy, not from a conscious imbecility, but from a graceful and tender *affection*, that is designed to honor, and not to embarrass him.

It is because this principle of her nature, this fundamental law in the structure of society, is overlooked in her Education; it is because she is viewed as a being whose universal weakness must find strength in man, whose utter helplessness must lean on him for support, that as an intellectual being, she has so long languished. Under the influence of these erroneous notions, her education has been so much restricted, that the presumed imbecility has, in a great degree, actually resulted; and she is consequently compelled, in many instances, to attach herself, as a *parasite* to him, by whose side, she should have flourished as the *ivy*.

The Missletoe, fit emblem of Woman as she often is, borrows its sustenance and strength from the forest tree, whose hardihood protects, and whose majesty elevates, the frail and feeble parasite. And while the soil, the sunshine, and the shower, all minister to the glory of the one, yet the axe, decay, and the storm, will one day involve both in the common ruin. Thus esteemed, she, as a member of society, has no individuality of life, no originality of character. Her destiny is developed by influences, and affected by circumstances, which she cannot control. Popular Education contemplates her in this position only—that of mere dependency; —and a light and airy training soon accomplishes her for the station.

But her sphere, her destiny, are altogether different. The vine, familiar illustration of woman in her true relation and character, has an individual and separate existence. It springs forth with independent life, into a genial clime, endowed with an original beauty and utility. The dew and the rain, the beam and the breeze, impart greenness and vigor to the stem, grace and elasticity to the branches. In the economy of nature, its lively tendrils soon instinctively seek the oak, not for sustenance, not for protection alone, not to resign its existence or its independence, but that it may the more easily reach to a balmier air and a brighter sky. Such is the true position and character of woman. Endowed with distinctive and original attributes; sensitive to every influence around her; with a high and peculiar destiny before her, she affords the singular instance of dependency of position, combined with independency of character. Skillful be the vine dresser, that may train this generous plant, for the glory of the vineyard is fashioned in his hands!

The obvious tendency of such errors is often practically exemplified in the education of the girl. From the opinion already noticed, that her attainments should be limited to a few rudimental

branches and light accomplishments, have originated many pernicious practices in the school; and I hesitate not to affirm, that these erroneous notions, where incorporated into a system of instruction, render any institution of learning useless, if not positively injurious. The limits of this address will not allow a specification of other evils; we must, therefore, be content to substitute the presentation of a few additional general principles, which, if observed, will do much to correct or to prevent the errors incidental to the subject.

Education pre-supposes the *imbecility*, as well as the *ignorance* of the young; and hence, it should tend not only to enlighten the understanding, but also to develop the various faculties of the mind. Nature has happily suggested the method of combining instruction with discipline. She has so connected the exercise of mind with the acquisition of knowledge, that the child's earliest efforts in the pursuit of the one, necessarily invigorate the other. It is the general notion that an education is a certain amount of knowledge acquired, and that an *educated* person, is one of great learning, one who has perused many books, and who can repeat many facts in history, or many truths in science. It is forgotten that the *memory* may be gorged with undigested lore until the student becomes an *animated encyclopediæ*, and yet the judgment, the taste, and the imagination remain unimproved. That uniform development of all the powers which constitute the strength and activity of the mind—a ready common sense for all times and all subjects—is of more value than all the memorized learning of the schools. The erudite book-worm can never, in this sense of the term, become better educated than his *shelves;* he has no higher title to the honor of the name than a circulating *library*.

It is some times the case that this error is embraced by the teacher, and that he labors to store the memory with words, to the entire neglect of the cultivation of the mind. But he scatters seed upon a stony ground, who undertakes to instruct without culture. Knowledge should be regarded as the means, and not as the sole object of education. In conveying instruction to the young, the teacher should arouse the whole intellect, awaken every energy, until the soul becomes ready for the work of assimilation—and thus, each truth that is communicated will not only illumine, but likewise invigorate the mind. The maxim which these reflections naturally suggest, is one which we have long since adopted as the basis of a system of intellectual education. Thorough culture the object, and familiar instruction the means.

These principles are utterly at variance with that worse than useless method known as the *rote system*, by which teacher and pupil are, in a great measure, exempted from the labor of *thinking for themselves*. Text-books are useless, except as assistants to oral and experimental instruction. But when they are substituted for the familiar lecture, or for the invigorating exercise;

when they, alone, furnish the teacher with his questions, and the pupil with his answers, they become fatal to scholarship, and often to mind. The ultimate tendency of this wretched system, is to produce another, more wretched still. From making the *book*, instead of the *subject* the text, the puerile *pencil system* has originated, by which the employment of the pupil has been reduced to the stupid task of *marking* the lesson, and repeating the same by rote, in reply to *printed or prepared questions*, which sometimes injuriously contain or suggest the answer. These exercises are generally continued until the closing day of the monotonous term, when the public are summoned to witness the pageant of an exhibition, where the pupil, with slumbering mind is made the puppet, and the astonished parent becomes the dupe: deceived by system into the belief, that the daughter, for whose education he had long and anxiously toiled, has now become the real, of that vision which hope and pride and love, had made the idol of his heart. Alas! the surfeited memory of the *graduate*, soon surrenders its borrowed verbiage; a blankness comes over the mind, as word after word passes into oblivion, and soon, all that is left, is a vain conceit of scholarship, and a passive imbecility of all the mental powers.

Fortunately for the nation, this sacrifice of youthful mind, is seldom witnessed in this enlightened day; and the time is near at hand, when the common sense and the humanity of the *people*, will rescue the young without exception, from a condition worse than ignorance itself.

No education can be regarded as useful or philosophical, unless it be adapted to the nature of the individual. That is the most miserable pedagoguery which prescribes an invariable routine of study and exercise, to which every taste, and age, and grade of capacity must conform. Indeed, this Procrustean practice has ruined many a sprightly mind. In the development and illumination of the intellect, it must be remembered that no general system can be desired, applicable in its details to every one. Yet, at the same time, there are fundamental principles, general laws of mind, on which education, as a science, is firmly established. To *these*, all minor systems, all the regulations of the school, all the details of practical instruction, should conform. One of the most important of these laws, is the *supremacy of the moral sentiments*. If it be true, that the noblest endowment of man is his moral nature, it follows that supreme regard should be paid to its culture in the disciplinary department of the school.

I am aware that schools alone, cannot form characters independent of parental and social influence; but they exert a most important agency in nourishing the virtuous or the vicious principles. It is a solemn truth, which parents should ever bear in mind, that in the room of the instructor, the scholar, at each moment, either advances or retrogrades. This is peculiarly true with respect to

his morals. The intellect, once deeply impressed with any truth in science, seldom relinquishes it; but the heart of the boy, that may glow with the ardor of love to-day, may heave with the tempest of passion to-morrow. The literary career of the student is generally progressive. Each page, and lecture, and experiment, necessarily increases his store of information, and even idleness and inattention, but robs him of time. But a vicious example, emblazoned in history, or delineated in verse, may give to passion an ascendency that, in the end, may triumph over virtue. Perhaps, at no period of life is the moral man entirely stationary; certainly in youth, when every affection is pliant, and every sensibility acute, the heart is strengthening either in virtue or in vice.

It would be superfluous, on this occasion, and before this community, to dwell upon the importance of *moral culture*. The great question, in which we are interested is—How shall our schools and colleges correct the follies of the young, inculcate the principles of sound morality, and establish the supremacy of an enlightened conscience?

Unfortunately for the young, genius and learning are too commonly exalted as the only standards of human greatness. A thoughtless world has so often rendered its homage to personage, instead of to character, that the ambition of the youth, kindling with the spirit of the age, has burned for distinction as a scholar, rather than as a Christian—has sacrificed to Apollo rather than to Virtue. Yea, misled by the voice of the populace, he pursues the bubble of fame to the end of life, and seeks in death for the heroe's slab, rather than for the martyr's crown!

The same spirit that inspires the young man with this idolatrous passion for earthly grandeur, has erected for the young woman, the gilded altar of fashion, and it is often the case, that the school merely indoctrinates her into the service of this Protean goddess—accomplishing her as a scholar, it may be, but detracting from her worth and loveliness as a woman.

The formal lecture, the lesson in ethics, the strict regulation and the prompt penalty, never inspired youth with the love of virtue. Eloquence may define it, history may illustrate it, poesy may depict it, until the judgment comprehends its nature and fancy acknowledges its beauty; yet still the heart unimpressed, may turn with indifference from its contemplation and again attach itself to vanity or to vice. The most abstruse science or the most intricate art may be simplified by the skilful preceptor until the mind of a child can comprehend it with clearness; but *instruction alone*, I repeat, is insufficient to kindle within him the spark of piety or of virtue. The discourses of Socrates and Plato, elucidating some of the sublimest principles of morality, illumined the darkness of the Pagan's night and revealed the abominations of his worship; yet their instructions never quickened the seeds of virtue, nor warmed a single heart with the glow of true devotion. The light of their

philosophy shed upon a benighted world, the glimmerings of a cold yet brilliant splendor.

I cannot recognize in the school, in the family or in the nation, a single principle of genuine virtue germinating in the heart, and living in the conduct, that does not owe its existence and sustenance to the influences of Christianity. I care not whether the skeptic affects, or feels within him, the moral life which he professes; I regard his *ingratitude*, as more unreasonable than his *creed*, for even he owes the excellency of his virtues to the inspirations of that system which he opposes. A familiar study of the youthful heart has convinced me, that neither the parent nor the teacher can develope high moral characters; can inspire a love of the beautiful, the true, and the infinite, without calling to his aid the sacred influences of the Christian Religion. With this conviction upon my mind, I would endeavor to impress every parent in the land, with that first and most important of educational truths—*Early piety, the only basis of a virtuous character.*

If man's happiness, temporal and eternal, by a law of his being, is made dependent upon the proper development of his moral nature, and if this nature has been brought under subjection to a code of revealed law, as a disciplinary measure, it is surely presumptuous in man, to devise any other system for the accomplishment of an object, which Heaven has thus wisely and benevolently planned to secure. The wisdom of a finite creature cannot improve the schemes of an infinite mind. That course of preparatory study and discipline, which has been already prescribed by the Great Teacher, in order to accomplish man for the society of Angels, is perfect in all its provisions, and in all its departments. The best system of moral instruction for the young must, therefore, embrace these principles which have originated with Him whose eye ever watches for the good of His creatures. Systems of morals, golden rules of conduct, and lectures for the young, may fitly adorn the library of the family, and be profitably adopted as class books into the school. But no compilation, no production of man, can supercede the *Holy Scriptures* as a text-book for the young. Its delineations of character, the inspirations of its devotion, its noble precepts, to which obedience is won by promises of future glory, conspire to render it emphatically the *book for the heart.* The close, critical study of its moral code; a familiar and habitual perusal of its touching story; and, especially, the application of the heart to its heavenly poesy, must necessarily give to the pupil an early bias to virtue, and implant within his bosom the germ of a rational and ennobling piety.

That the precepts and poetry, the prophecy and history of the Scriptures should be prescribed as a regular study in all our schools, I have long conscientiously advocated. But that the teacher, as well as the parent, may become a bigot, and enslave the young and inquisitive mind to sectarian prejudice, I freely admit. Yet

it would be absurd to argue that this possible abuse of his station and influence, releases him from the solemn obligation to inculcate a pure morality, a meek and consistent piety, in all whom nature or chance may place under his charge. The love of truth should be among the earliest inspirations of childhood. But a passion for the beautiful and the true—the earliest and noblest manifestations of the soul—perishes under the influence of bigotry, whether religious or political. He who would rob a young mind of its independence, and shackle it with opinion, is the worst of all tyrants, *for he is a tyrant of the soul.*

But it is not the adoption of the Bible as a text-book alone, that is sufficient to accomplish the great educational purpose proposed. An habitual reference of the daily conduct and conversation of the student to its practical requirements, is necessary in order to render it the standard of character, or an effectual agent in its formation. It must therefore be adopted as the *Law-book* of the school—as a system of regulations for the moral discipline of the pupil. Its precepts should by a single statute of College, be incorporated as common law, for the regulation of the behavior, the formation of manners, and the discipline of the heart. By this means, a constant reference will be made to a perfect standard of character, and the young will learn from necessity and exercise with pleasure, obedience to the laws of Heaven as well as to the regulations of the school. The simple, yet comprehensive injunction, *Do right*—when enforced as a will of a Divine Teacher is worth a thousand explicit statutes, enacted by a Faculty and armed with the penalties of the school. In the language of a popular and elegant writer* of the present day, "*search the Scriptures;* they are profitable for doctrine, for reproof, for correction, and for instruction in righteousness. These terms comprehend a wide range of knowledge and are by no means confined to metaphysical doctrines or religious tenets. It embraces something of almost all branches of information, and on some subjects comprehends all that is known, while on the true nature and destiny of man, it contains *all* that we can know, because it is all that God has chosen to reveal. It would be absurd, therefore, to reject the Bible in a system of education, if it were considered merely as a book of literature or knowledge; but when it is considered as a book of divine law inspired of God, to reject it as a means of instruction, is not only absurd, but insane. It would be to shut out light and welcome darkness, for no reason but that man loved darkness better than light."

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* Mr. Mansfield.

ARTICLE III.

CALIFORNIA: ITS PRODUCTS AND COMMERCE.

WHILE the excitement which carried so many of our enterprising citizens to California, continued we refrained from publishing such accounts of its products and trade, as daily appeared in the public prints, lest we should seem to give countenance to the reckless adventures, which threatened, for a time, to drain the western States of their most useful population.

But the excitement and emigration having subsided, the products and commerce of that region are now to be regarded as new and important facts in connection with the political, social, and commercial condition of the American States east of the Rocky Mountains.

Henceforth, the vision of the statesman must embrace the western slope of the continent and the commerce of the broad Pacific; the political economist must review his former systems, and, adding a new chapter, republish with annotations; and the merchant, open a correspondence with new markets, which, until recently, were unknown. The production of gold in California is to be looked to in future with an interest not less intense, than that which was formerly observed in respect to the crops in England and on the continent of Europe. And the financial operations of capitalists, involving the successful prosecution of our great schemes of public improvement, are all to be affected by the mining operations west of the Rocky Mountains. In consideration of these facts we shall endeavor in future to collect and arrange the statistics relating to the products and trade of California for the benefit of our readers.

The following article, which we extract from the *Merchants' Magazine*, is credited to the "*Pacific News*" and has the appearance of having been carefully made up. It is the fullest account that we have met with of the products and trade of California for the year 1850. EDITORS.

FIFTY years ago the only evidences of human improvement, says the *News*, or of the fact that the hand of man has fashioned into shape anything appertaining to this locality, was the Presidio at the northern extremity of the borders of San Francisco, and the Mission at the southern line. Between the two was almost a barren waste, the extremes being occupied by a community of perhaps a thousand rough, uncivilized men, untutored in the arts, unlearned in the sciences, and following in the way their fathers trod, since first the footsteps of man were imprinted in the sands of a

locality to which the eyes of the world are now turned in almost stupefied amazement.

Look at San Francisco now! Had a dweller hereabouts of "fifty years ago," taken a Rip Van Winkle sleep, and awaked at the close of "eighteen hundred and fifty," he would have fancied that the black art of magic had eclipsed itself in working a change scarcely less surprising than though the whole locality had been bodily transported to another region. The mud hovel, the tiled adobe buildings, the hide houses, have given way to splendid piles of brick and mortar that rise towering to the skies—monuments of the energy and ingenuity of a people that know no superiors, and acknowledge no equals,—while the people of that day have almost left the field of action, or become "hewers of wood and drawers of water" to the more enterprising and intelligent class, whom the golden sands of California—to leave out of question the "manifest destiny" which seems to urge on the American nation—have attracted thither. Fancy may conjure up, and almost give life and shape to, a thousand impossibilities, absurd and visionary, but the utmost stretch of imagination would fail to present a picture so wonderful in its aspects, as the past and present history of California.

We have neither time nor space to extend the contrast for the entire State, but must confine ourselves to the principal city, where the changes which have taken place are more marked than in any other locality; where "fifty years ago" the extent of population did not exceed one thousand, but which number may be multiplied at the "close of eighteen hundred and fifty," by at least *thirty-five.*

As the mines of California, and the shipments of gold dust are the principal features of attraction here and at home, we first enter upon that field, and annex the amounts which have been sent forward during each month, for the past year, as taken from the manifest at the custom house, and which, of course, does not include that taken by private hands. All the statistics presented below are compiled from official sources, and for a great portion of them we are indebted to the courtesy af Col. Collier, the Collector of the Port, and the gentlemanly clerks under him, who have charge of the books.

AMOUNT OF GOLD DUST SHIPPED FROM JAN. 1ST TO DEC. 30TH, 1850.

January	$448,444	July	3,020,000
February	734,351	August	5,282,880
March	1,250,000	September	918,000
April	2,201,000	October	4,598,461
May	1,731,863	November	5,337,539
June	2,669,045	December	1,250,000
Total amount for the year			$29,441,583

This statement is a sufficient answer to the too often expressed opinion that the mines were becoming exhausted, and that California must prove a failure by and by. For the two past seasons the summer months have produced the greatest amount of gold, the wet diggings being worked then to a greater extent than the dry. This accounts for the fact that the shipment in the month of August exceeded that of any other month in the year.

Fixing the amount of gold exported, and which was regularly shipped and entered, for the period named above, at $30,000,000, in round figures, and add to it an estimate of $12,000,000, as having gone forward in private hands, and $6,000,000 retained for circulation, and the aggregate shows the enormous sum of $48,000,000; an amount exceeding one-third the total *of all the products of the United States* exported during the fiscal year ending June 30th, 1850, and nearly one-third the amount of imports; $12,000,000 more than the exports of the State of New York or Louisiana; $35,000,000 more than Alabama; $38,000,000 more than South Carolina; $40,000,000 more than Massachusetts or Maryland; $41,000,000 more than Georgia; and $43,000,000 more than Pennsylvania. And while viewing this statement, it will at the same time be borne in mind, that the States which show the largest amount of exports, are those which possess the advantage of having ports situated on the sea-board, and which do the carrying trade of States more remotely located. The eight States above enumerated, in fact do the labor of transporting to foreign ports, not only their own products, but those of the remaining twenty-two.

From the same source of information, the custom house books, we have compiled the following monthly receipts of bullion, at this port, for the year.

AMOUNT OF BULLION RECEIVED FROM JAN. 1ST TO DEC. 31ST, 1850.

January	$227,331	July	157,000
February	19,600	August	295,000
March	100,000	September	45,000
April	400,000	October	none.
May	267,000	November	95,000
June	116,669	December	none.
Total for the year			$1,722,600

The largest proportion of this amount of bullion has been received from the Atlantic States, though a no inconsiderable amount has found its way from the old world—sent hither from both localities, for the reason that in no country in the world does an investment of money pay as well. Securities are ample, and the losses small, in comparison with the flood of disasters which sweep

over other localities. Individuals may be ruined by fire in an hour, but the money loaned at from three to ten per cent. *per month* interest, generally comes in but for a small proportion of the loss.

As connected with the subject of currency, we will here take occasion to say that in no other section of the globe, are the generality of bankers more careful, judicious, and business-like, than in San Francisco. The rapid changes which are noted every day, necessarily compel them to watch the course of events with a careful regard to their own interests; and the exceptions to the general classification for integrity and business capacity, are but few. It is but a short time since most of them, in San Francisco particularly, passed through a panic that would have shaken the commercial circles of other cities to their centre; and all but one or two came out unscathed, meeting every demand upon them promptly, and to the last dollar.

The names of the principal bankers of San Francisco, are as follows:—

BURGOYNE & Co., Montgomery street.
BOLTON, BARRON & Co., "
E. E. DUNBAR, "
T. J. TALLENT & Co., corner of Clay and Montgomery.
W. F. YOUNG, Washington street.

The following houses represent parties located elsewhere:—

B. DAVIDSON, represents the Rothchilds, London.

F. ARGENTI & Co., represent Brown, Brothers and Co., New York, and Brown, Shipley & Co., Liverpool.

WELLS & Co., represent Willis & Co., Boston, and Drew, Robinson & Co., New York.

PAGE, BACON & Co., represent Page & Bacon, St. Louis.

JAMES KING, of William, represents Corcoran & Riggs, Washington, D. C.

S. BEEBEE LUDLOW, represents Beebee Ludlow & Co., New York.

GODEFFROY, SILLEM & Co., represent J. C. Godeffroy & Co., Hamburg.

In addition to the above, there are other smaller operators, whom it would not perhaps be proper to classify amongst the leading bankers of the city, their transactions being mainly confined to the purchase and sale of gold dust, and do not do a legitimate banking business.

For the time included in the period for which all our statistics have been made up, namely, the twelve months past, there have entered our harbor, from all foreign ports, 1,743 vessels. During the same period the number of vessels which cleared, was 1,461. The vessels arriving have landed upon our shores, 35,333 males, and 1,248 females. The number which have left by sail vessels

and steamers, during the same time, was 26,593 males and eight females.

The report of the Secretary of the Treasury on Commerce and Navigation, for the fiscal year ending June 30, 1849, shows the number of clearances from the port of New York to have been but little more than twice that of San Francisco for the year ending December 31, 1850, and the number of arrivals at that port—the same period compared—to have been 268 *less* than twice the amount. As compared with New Orleans, the difference in favor of San Francisco is, in clearances, 330, and in arrivals, 645. When the comparison is made with Philadelphia, we find the difference still greater in favor of San Francisco, being in clearances, 922; and in arrivals, 1,137. The same would be the result were the comparison made with any of the sea-ports in the United States.

The total value of merchandise received during the same period, in domestic vessels, was $797,275 10. The tonnage of the vessels, 82,949.

It has been frequently asserted by persons unacquainted with the facts that California has imported more goods, and contracted a larger aggregate of debt elsewhere, than her shipments of gold would pay for. To show the error in this statement, a comparison of the figures above need only be made. The total value of *all* the merchandise received here, of every nature and description, from foreign and domestic ports, from November 21, 1849, to September 30, 1850, was $4,155,257 75. By reference to the table of gold shipments, in this article, it will be seen that the aggregate sent forward during the first four months in the year, was more than the entire debt incurred by California, for merchandise, during the whole year.

In the month of March, 1849, the first steamship in the trade between San Francisco and Panama, entered the "Golden Gates," with what demonstration of rejoicing the staunch old vessel "California" was welcomed may well be imagined. In less than two years from that date, we find the following noble steamers traversing the waters of the Pacific, arriving and departing with the regularity of a train of cars upon a New England railroad.

PACIFIC MAIL STEAMSHIP COMPANY LINE.

California,	Tennessee,	Oregon,	Sarah Sands,
Panama,	Unicorn,	Northerner,	Carolina.

LAW'S LINE OF PACIFIC STEAMERS.

Columbus,	Isthmus,	Republic,	Antelope.

In addition to these, belonging to the regular lines, are the steamers New Orleans, Ecuador, and Constitution, which have been

engaged in the Panama trade, and also the Gold Hunter, and the Sea Gull, which have recently been upon the route between this port and Oregon. The number of steamers, running between this port and Panama, is greater than the number employed in the trade between New York and Liverpool, and New York and Havre, *combined.*

One year ago last October, *fifteen months* since, the first steamer, the "Senator," designed for the river trade, arrived in port. Previous to that time, the transit of the river, to the ports above, had been by means of small sail-craft, occupying some days in a journey that is now made, by many of the vessels named below, in from *seven to ten hours.* There are now employed in the river trade, the following steamers:

STEAMERS EMPLOYED IN THE RIVER TRADE.

Names.	Tons.	Names.	Tons.
Senator	754	Eldorado	153
Star	22	Libertad	30
Miner	75	Com. Jones	31
New World	525	Fire Fly	19
California	61	Lucy Long	18
Hartford	251	Linda	52
Fashion	87	Wm. Robinson	46
Missouri	27	New England	28
Ion	30	Jack Hays	42
West Point	239	Kenebec	44
McKim	376	Gen. Warren	309
Chesapeake	392	Victor Constant	57
C. W. Grinnel	10	H. T. Clay	154
P. B. Redding	8	New Star	48
Georgiana	30	San Joaquin	39
Elna	30	Jenny Lind	61
Gov. Dana	67	Earastus Corning	86
Maunsel White	36	Union	87
Bute	26		
Tehama	83	NOT YET REGISTERED.	
Maj. Tompkins	151		
Mariposa	60	Confidence, about	450
Yuba	19	New Orleans, about	850
Martha Jane	15	Benicia, about	100
Sacramento	38		
Sutter	51	Total	6,632

In addition to this list of steamers, there are also engaged in navigating the rivers, and the bay, 270 craft of various kinds. There are also now lying in port, many of them abandoned and others used as store-ships between five and six hundred vessels, not a few of them of the largest class that can be found in any of the waters of the globe.

The auction business of San Francisco bears no unimportant relation to the trade of the city and the State. The number which we propose to name as the principal individuals and firms engaged in this branch, is seventeen, without including the score or two whose "going, going," disposes of goods in smaller quantities. The names of the more extensive houses are as follows:—

Middleton & Hood, Washington street; Kendig, Wainwright & Co., Montgomery street; H. B. Lafitte & Co., Montgomery street; Theodore Payne & Co., Montgomery street; James B. Huir, Montgomery street; Jones, Carter & Co., Montgomery street; J. S. Riddle & Co., Montgomery street; Backus, Davis & Co., Washington street; Starr, Minturn & Co., Washington street; Caldwell & Emerson, Montgomery street; W. J. Sherwood & Co., Washington street; Garniss & Co., Washington street; Frederick Dunbar, Washington street; Kettelle, Mahoney & Co., Washington street; Moore & Folger, Montgomery street; Gower & Co., Montgomery street, Backus & Harrison, Montgomery street.

These comprise the principal auction houses in the city, and for correct business habits, liberality and integrity, will not suffer in comparison with those of any other city. Many of them occupy rooms far more spacious than those required for the business of the long-established and most extensive of the Atlantic cities.

Neither time nor space will permit us to enumerate in detail many kinds of trade which are followed with satisfactory success in our midst, and which form no small item in the trade of California. In addition to what has already been mentioned, we will add that San Francisco, with a population of over 35,000, sustains *seven* daily papers, while New York, numbering *half a million*, can boast of only *double* that number! We have eight express companies, the principal ones being Adams & Co., and J. W. Gregory, over *sixty* brick buildings, where six months ago there was not *one:* eight or ten first class hotels, at the head of which stands the "Union," (just erected by Selover & Co., and under the management of Isaac M. Hall,) the "St. Francis," "Delmonico's," the "Revere," and the "National."

But a few months since, the boundaries even of San Francisco were hardly defined with sufficient definiteness to guide the inquirer in his search. Now we have *one hundred and seven miles* of street laid out, *one quarter* of which is built upon and occupied, and over *seven miles* of it substantially planked, and most of that distance properly sewered. We have now a semi-monthly mail, where a year ago it was only an *occasional* one—reaching our shores *now and then*, and half the time not as often! One Marine Insurance Company has already been formed, with a capital of $500,000, and another in progress of organization.

Such is a bird's eye glance at San Francisco at the close of "Eighteen Hundred and Fifty," as compared with "San Fran-

cisco Fifty years ago." The change is wonderful and surprising, but when we add that nearly all this has been accomplished within two years and a half, it is no secret that the world look on and wonder. Civilized and uncivilized nations alike have heard of California, and most of them have witnessed, in some degree, enticing specimens of her mineral treasures. But she has a mine of wealth in her broad acres yet undeveloped—agricultural riches that lack only the hand of industry, the energy of the people into whose hands destiny has placed the country, to make the wilderness "blossom like the rose," and her plains and valleys to yield riches far more lasting and stable than even the glittering ore that each stroke of the miner's pick exposes to the broad light of the noonday sun.

Article IV.

THE COURSE OF TRADE.

We find in the *Des Moines Valley Whig* of the 22d ult. an able article on "the course of trade," which we commend to the consideration of all projectors of public improvements, especially in the States bordering on the Mississippi. In the early numbers of the Western Journal we endeavored to illustrate the "natural laws of commerce," chiefly with a view to a system of public improvement that should conform to these laws. We knew that the people of the West, with few exceptions, looked almost exclusively to the eastern cities and Great Britain for a market for their products; and it was natural to suppose that their projects of improvement would all tend in that direction. And desiring to see a well digested system adopted in the beginning, we have frequently recurred to this subject, without offering objections, however, to any specific project which has been suggested by the people. For, believing that no improvement can be made in any direction without benefitting the country, we were unwilling to discourage the prosecution of any work desired by our citizens; leaving it with those more immediately interested to judge for themselves.

In behalf of the country, we thank the author of the following article for his practical illustration of the laws of commerce, exhibited by his tables of prices of Western produce at Chicago and St. Louis. We know that such facts operate with more force on the minds of men in general, than all our arguments derived from natural laws.

We remember when the Michigan and Illinois Canal was regarded

chiefly as a route to eastern markets; and apprehensions were felt by intelligent merchants and others interested in the trade and prosperity of St. Louis, that when opened it would draw the rich harvests produced in the region of the Illinois river to Chicago, and greatly diminish the trade of St. Louis. Indeed, we remember to have heard the opinion expressed, that the wheat and flour produced on the Upper Mississippi would take that route: and had a vote of the citizens of St. Louis been taken, we think it altogether probable that a majority would have been found opposed to the canal. Time has shown how little cause there was for such apprehensions. Instead of going to Chicago, the canal brings wheat and flour from that place to St. Louis. We saw, last year, flour on the levee with Milwaukie brands on the barrels. This, of course, had been shipped once on the lake and reshipped on the canal at Chicago. There have been times, doubtless, since the canal has been in operation, when wheat has been shipped from the Illinois River to the lake, but we are persuaded that St. Louis has been a greater gainer than Chicago by this improvement. We can but regret that we are not in possession of such facts as would show the true nature and extent of the change produced in the course of trade between St. Louis and Chicago by the canal. The principal facts in our possession which bear upon the subject, are those contained in our tables of Steamboat arrivals. In 1847, the year before the canal was opened, the number of arrivals at St. Louis from the Illinois river was 658; in 1850, the number had increased to 788, an increase of more than 20 per cent. in four years. But even this statement does not exhibit the true extent of increase in the trade of the Illinois river; for it is to be recollected that the grain crop of 1847 was one of unusual abundance: and the demand occasioned by the famine in Ireland brought the entire surplus to market.

These facts show that the trade of St. Louis has greatly improved in the direction of the lakes since the opening of the canal; and so far as concerns the commercial prosperity of this city, the direction which the produce takes is of little importance. EDITORS.

THE COURSE OF TRADE.

While all the adaptations and tendencies of nature conspire to draw the produce of the interior of Iowa to the southern outlet of the State at the "Great Gate," the laws of trade are tending with irresistible force to produce the same result.

It would doubtless be possible to attract the trade of the interior of our State across the dividing ridges, bluffs, rivers and valleys, to the Mississippi, and thence two or three hundred miles across Illinois to the Lakes, or half that distance in an eastern direction to the centre of the State, and thence, at right angles with this course, three or four hundred miles to the southern terminus of

Illinois. But there must be great inducements held out to bring about such an unnatural state of things, greater indeed, than can ever, under any circumstances, be offered. Taking Burlington and Keokuk as the points of comparison, at which the produce of Iowa is to leave the State, and admitting that the cost of transportation *to* these places is equal, any one, at all acquainted with the cost of transportation on Railroads and on the Mississippi, can see at a glance, that the cost by Railroad from Burlington, admitting one shall be built, and thence to Cairo, must be immensely greater than the freight from Keokuk to the same point, and even greater than the average cost from Burlington by the river route. Then, so far as the southern market is concerned, there can be no question that Keokuk is, and ever will be, the most favorable point in the State to take advantage of its benefits.

And now, taking Chicago and St. Louis as the representatives to the people of Iowa of the benefits of a northern and southern market, remembering that St. Louis can be reached at a tithe of the cost to Chicago, what are their comparative advantages?

During the last four or five years, the price of the staple products of Iowa have gradually advanced in St. Louis as compared with Chicago, and during the past two years the average prices for these productions have been higher in St. Louis than in Chicago. To show how the matter stands in regard to the article of wheat, destined to be our most important staple, we give the prices for as many months during the past two years, as we have at hand, not doubting that a complete statement would fully bear out the result indicated below:

	Chicago.	St. Louis.
January, 1849, price,	60 @ 95	80 @ 85
February, " "	60 @ 70	80 @ 85
March, " "	60 @ 70	75 @ 80
April, " "	60 @ 80	75 @ 78
May, " "	65 @ 75	80 @ 83
July, " "	55 @ 75	85 @ 88
August, " "	70 @ 95	85 @ 87
September, " "	70 @ 80	85 @ 90
December " "	60 @ 75	98 @ 1 15
1850.		
January, " "	60 @ 95	95 @ 1 00
February, " "	80 @ 95	95 @ 1 00
May, " "	90 @ 1 00	1 10 @ 1 20
1851.		
January, " "	65 @ 85	78 @ 85
April, " "	65 @ 75	65 @ 80

These figures taken from chance numbers of the Prairie Farmer in our possession, and compared with the St. Louis prices current, extend over a sufficient space of time to demonstrate that the

Southern route leads to decidedly the best market, with much less expense in getting there.

Hogs were higher last winter and winter before last in St. Louis than in Chicago, and the prices in Keokuk were about the same as in Chicago.

We have not compared prices of beef, oats, and corn, in the two places, during the entire period of the past two years, but from the quotations we have noticed, we incline to the opinion that the average price has been decidedly in favor of St. Louis, and that it would not at any time have paid to take these articles to Chicago, even had there been a Railroad in operation to that point.

As we stated before, the St. Louis market has been constantly improving, in comparison with the Chicago, and that it has been as good, or better, for the past two years, is shown, not only by the prices quoted, but by the fact that the greater bulk of the pork, produce and even the flour of the Illinois river, has gone down the river, rather than through the canal to Chicago.

The improvement of the St. Louis market during this period, is owing partly to the increased demand south, but more to the fact that within a very few years past, the completion of railroads and canals has opened up vast regions of productive country in Ohio, Indiana, Illinois, Wisconsin, Michigan, and portions of Kentucky, Virginia, and Pennsylvania, to the Northern market. All the immense districts named will be enabled to reach the northern market at less expense and in less time than it can be reached by Iowa. And the only compensation we have is in the fact that we can reach the Southern Market in less time and at less expense than they. But this Southern Market will be as good as the Northern, for the vast increase of facilities for transportation which is rapidly opening up the entire scope of the middle and western States to the eastern market must eventually create an equilibrium between this market and the southern. Besides this will be very much promoted by the completion of the railroads from the Ohio and Mississippi to Baltimore, Charleston, and Mobile.

The entire central and northwestern portions of the United States with their inexhaustible supplies can reach the eastern market in advance of us, and at less expense: but the very fact that so vast a region of country is opened up to the northern market insures an equilibrium between that and the southern, and we can reach the southern market in less time and at less expense than they of Ohio, Indiana, &c.

It is inevitable then, that the produce of Iowa must go south, as that is the direction indicated by the laws of nature, and the laws of trade. And the people of the interior, would they consult their own interests, must act in accordance and concert with these laws, instead of expending their means and energies in a vain effort to thwart and oppose them. The produce of Iowa must come this way, and the object should be to get it here by the most direct and cheapest route.

ARTICLE V.

CONSTRUCTION OF PLANK ROADS.

THE following article constitutes the fourth chapter of a pamphlet entitled "observations on Plank Roads, their utility, cost and expensive character, compared with Railroads," from the pen of Joseph E. Ware, Esq., of St. Louis.

The author is the inventor of a new method of constructing Plank Roads, for which he has obtained a patent. His improvement consists chiefly, as we are informed, in the use of fastenings designed to keep the planks in place, so as to preserve a uniform surface, the main object which should be aimed at in the construction of all roads. His plan has been approved by the "*Scientific American*" and other prints, in handsome terms; and we use this occasion to recommend it to the consideration of Plank Road companies throughout the country. In his plan the author dispenses with sleepers, and consequently a considerable item of cost is saved in the construction.

His hints on the subject of engineering will, we think, be found useful to the country, for we are persuaded that the importance of employing competent Engineers on Plank Roads is not sufficiently appreciated. And we are also persuaded that to make Plank Roads, as they should be, their cost will be greater, than it is generally estimated; but not greater than their utility will authorise, for we regard them as indispensable to a highly prosperous condition of the agricultural interest. EDITORS.

ENGINEERING.

Our advice to those proposing to build a Plank Road is, first and foremost, to obtain the services of a good engineer, and give no heed to the statements of many that an engineer is entirely unnecessary—arguing that the cost is considerable, and may more profitably be used in the construction of the road. If a large number of the stockholders of any proposed line is possessed with such opinions, it is frequently useless for an intelligent advocate of a thorough and scientific course to urge such a course. In nine cases out of ten some ignorant and frothy upstart, without a particle of practical or even theoretical skill or knowledge, prepossesses the minds of the mass with the supposition that any common hand can "lay Plank Road." Where such is the case, the friends of a judicious course had better withhold their money, or reconcile themselves to the loss of a large portion of it.

On a road in Iowa, recently built, opposition was raised to the

employment of an engineer. One of the best friends of the road, and the largest stockholder, an engineer by profession, and of splendid abilities, offered his services free of cost. They were declined. A portion was built over a steep hill, while at a distance of a few hundred feet a beautiful ascent offered itself in the bed of a small stream that descended from the rear of the hill. Instead of adopting the route that science pointed out, to preserve a straight line, and as they stated, cheap one, the creek was crossed by a bridge eighty feet high, and the road carried over the brow of the hill, with a grade of one in ten in some places. The result is, that five thousand or six thousand dollars have been squandered and the road nearly worthless. As an evidence, however, of the profitableness of Plank Roads, this road, notwithstanding its clumsy construction and waste of money, has, as we are informed by letter from the President of the Company, paid a dividend of twenty-five per cent. In our estimates we include "engineering," as a portion of the expense, and allow enough so as to procure the services of thorough-bred engineers—not chain-carriers or rod-men, nor sub-contractors on other roads, passing themselves upon the public, where they are not known, as able engineers, and money will be saved.

Another point of importance is a right

GRADE.

No point involves the question of utility to the public more fully, than that of proper grade. It is, therefore, very important in laying out a Plank Road, to select that route having the most even surface. The advantages of a Plank Road may be entirely lost, if in laying out the line, due regard is not paid to the grade.

In the "Mechanic Industrielle," we find a table, giving the relative resistance from friction, for wheels in motion on a plane, as follows:

On a road of sand and gravel, one sixteenth of the load.

On a broken stone road, in good order, one seventeenth of the load.

On a broken stone road, in ordinary condition, one twenty-fifth of the load.

On a pavement, one fifty-fourth of a load.

On sawed oak plank, one ninety-eighth of a load.

And in "Aide Memoir de Mecanique," we find the experiments of Morin, elaborately detailed, as follows:

Character of the road.	Carts with large wheels.	Trucks of two tons.	Diligences, small wheels, five tons.
New road covered with gravel, five inches thick	1-12	1-9	1-8
Solid Road, with gravel	1-16	1-11	1-10
Smooth and solid earth Road	1-41	1-29	1-26
Dry and smooth Macadamised Road	1-75	1-55	1-48
Moist and dusty Road	1-53	1-38	1-34
Muddy Roads	1-38	1-24	1-21
Do. with deep ruts	1-19	1-14	1-2
Dry pavement	1-90	1-65	1-57
Muddy pavement	1-69	1-50	1-44
Oaken platform	1-98	1-68	1-64

From the diversity of opinion among writers as to the proper average estimate of the useful effect of a horse—by fixing the grade at one in twenty-one, and supposing the horse to be passing at the rate of two miles per hour, equal to a tractive force of one hundred and sixty-six pounds, by placing the resistance at 1-60 of the load, as the common average, we will find the ability of the horse to be 2,700 pounds, or 10,800 pounds, as the load of a four-horse team. Desaquiliers fixes the power of a horse at two hundred pounds, with a speed of two and a half miles per hour; M. Sauver at one hundred and eighty-nine pounds, with a velocity of three miles per hour; Moore, an English writer, at eighty pounds, with a velocity of eight miles per hour—continued for ten hours. Tredgold's estimate is for six hours.

2 miles per hour,	160 pounds.	4 miles per hour,	83 pounds.
3 miles per hour,	125 do.	5 miles per hour,	43 2-3 do.

Brown, the celebrated engineer, from experiments upon fifty-two teams, or one hundred and forty-four horses, says: "The force exerted by each horse is one hundred and sixty-three pounds, at two and a half miles per hour.

"As these experiments were fairly made, and by horses of the common breed used by farmers, these numbers may be considered a pretty accurate measure of the force actually exerted by horses at a plough, and which they are able to do without injury for many weeks."

The same force required of a horse in ploughing, would, on a good Plank Road, with a grade of one in thirty, haul 3,260 pounds, and with one in twenty-one 2,505 pounds. Assuming, therefore, the resistance on a well laid Plank Road to be 1-98, we have then a good foundation for any estimates required. This is certainly a very favorable view of the subject, and may, when the road first comes into use, require some modification. Its best period, we think is, when the first surface of the plank has been used long enough to reduce every thing to the greatest degree of solidity and hardness. Softer wood increases the resistance, good yellow

pine would, we think, offer a resistance of one in eighty, cypress one in seventy-three.

On the maximum grade of one in twenty-one, which will, of course, determine the weight of the load, the resistance from gravity being in the proportion to the size of the angle of inclination, will be one-twentieth of the weight, to which the resistance from friction being added gives 94-1,400, or 643-10,000 of the load for the aggregate resistance in overcoming the ascent.

Thus a weight of sixty-four pounds, suspended over a pulley, would drag 1,000 pounds fixed upon wheels up an ascent of 1 in 21, upon a Plank Road. We may assume that the resistance from friction on the macadamized road, compared with the Plank Road is as three to one, or one-tenth of the weight; that the rises, to which such roads have to be accommodated, are, at times one to eight, and we have one-tenth to one-eighth—eighteen-eightieths of the load for the general resistance. One thousand pounds, therefore to be drawn over such a road would require a weight of two hundred and twenty-five pounds suspended over a pulley. The advantages possessed, therefore, by the Plank Road over the other, would be as sixty-four pounds is to two hundred twenty-five.

With a grade of one in twenty-one, six horses or mules could draw sixty barrels of flour or thirty bales of hemp or cotton, and by reducing the grade from one in twenty-one to one in thirty, six mules or horses would be able to draw seventy-four barrels of flour or thirty-seven bales of hemp.

One thing should never be forgotten in laying out grades, namly: that it is advisable, and sometimes economy, to make a detour of considerable extent, or to cut through heavy work rather than attempt to carry a road over an ascent of any great extent, wherein the grade is under one in sixteen. Animals can, by extraordinary exertions, draw a load up an ascent with a grade of one to twelve, and even under; but is it not evident that it is an impossibility to convey a heavier load over the entire length of the road than can be dragged upon the steep ascents? Hence, the folly of pursuing a pernicious course in the first stage of operations on a Plank Road, seeing that an easy ascent permits the passage of much heavier loads than where the grade is unfavorable. Should a few thousand dollars more be expended upon a good grade, it will, in the end, prove the wisdom and propriety of such a course.

DRAINAGE.

After a good grade, the next question of moment is complete and THOROUGH DRAINAGE. However excellent the grade, and admirably well performed the work on a road may be, if the drainage is incomplete, much of the utility of the road is lost. We urge it as a subject of vital importance to drain well, whatever the cost may be. To effect this, let the ditches on either side of the road

be at least three feet deep, and with true slopes. Outlets for the water should be provided wherever a convenient one can be found. Let those outlets have as much descent as possible. If the ditchings and outlets be efficient, the plank will last much longer, and the road be always in better condition.

Where it is difficult on any particular side of the road to obtain an outlet, run a culvert under the road, if one can be found on the other side. The object, at all times, should be to carry off every drop of rain which may fall on the road. The centre of the road should be thrown up at least twenty-two inches. Throw away the sods: let no earth be used but what will afford a firm and solid foundation when it has settled. Let the right side of the road, coming into town, be selected as the side for planking.—The face of the road, between the ditches, should be twenty feet wide, eight feet for the plank and twelve feet for the earth track. When the road is evenly thrown up, let it then be rolled with a heavy roller. This can be made by taking a log three feet or so in thickness, cut it six or eight feet in length, peel the bark off, and make it tolerably round; then bore two holes, two inches in diameter, in the ends of the log, as near the centre as possible; hew out a pair of stout fils, make two pins of dog-wood, or of an equally hard wood, leaving heads to the pins, bore a hole in each of the fils and mortice a cross bar into the fils two feet from the holes, after driving the pins in the centre holes, a team may be attached to the fils, or what is better, saw them so as to leave them but three feet in length, and hitch your team to the middle of the cross bar. After a thorough rolling, if any place requires more earth, let it be supplied. If sleepers are used, let the trenches for them be four and a half feet apart, and the sleeper let in so as to allow the plank to touch the earth. A tendency is now manifested to set the use of sleepers aside entirely, for the reason that on solid ground they are of no use, if any fastening can be used to keep the planks in place without them; and in wet and mucky soils the sleepers commonly used are a positive injury, from the vibration caused by passing teams. This vibration causes a churning of the wet soil, which is soon washed away from under the sleeper, and causing a depression in the road. It is not depth of sleepers that is needed —it is width for "bearing."

Sleepers have only been useful for keeping the road in shape while it was settling; they add at least $400 additional cost to the mile, without any adequate utility sufficient to warrant their use where they can be dispensed with. In wet or soft places, if the draining has been properly attended to, we would recommend the use of a cheap kind of boards, say winding edge boards from nine to fifteen inches wide and one to one and a half inches thick. We prefer those from the fact that they will never vibrate in the ground, and not having the depth to settle that a sleeper has, they therefore allow the planking at all times to lay firmly bedded in the soil.

Eight feet has uniformly been deemed a sufficient width for roads in the eastern States. We think it a matter of doubt whether our heavy western and southern teams of six horses or mules, and frequently six yoke of cattle, will find this width a sufficient one, particularly when they have to get on the planking after having had to turn off. Nine feet might, we think, answer the purpose. From the prevalent opinion entertained by people at large, that no skill is required to construct plank roads, we anticipate much dissatisfaction in many sections from the ill-advised attempts of persons to construct such roads without a proper conception of their requirements. We are sorry to see a Senator in our Legislature, in a report, otherwise able, setting forth this idea.

To secure a good road should be the aim of all interested, and the chief requisite in a Plank Road being a good and well drained foundation—every engineer should, therefore, feel the importance of this undertaking and endeavor to make his work a monument of skill and judgment, rather than a clumsy thing for sensible men to laugh at.

It should be always understood that the loaded team keeps the road, and where two loaded teams meet, the team going out from town is the only one that can turn off the track. The planked part of a road should incline three inches in the entire width of the planking. No circumstances will justify laying a plank road in the centre of the road way—first, because in that event the plank would be level on the top. Whereas, it is of the utmost importance to have a slant to lead off the water—and secondly, in wet weather especially, the one wheel running off on the earth track, finds less resistance to cutting than the other, consequently, the weight of the load being thrown on that wheel, must necessarily increase the weight of the draft, and soon cause the earth track to rut up and need repairs. A double track is rarely required on any route. Actual experience has demonstrated that any arrangement in the building of a plank road, whereby the earth settles away from the plank, allowing confined air to exist underneath, is fatal to the durability of a road. If the plank is well bedded in the soil, the period at which we may safely set down the duration of a Plank Road is, if of pine or other soft timber, eight years; oak, it is thought, will last two or three years longer. The wear, by abrasion, is calculated at one-fourth of an inch yearly, and the plank will last till worn down to one and a quarter inches. The plan is adopted in many places, of turning the plank over, after two or three years wear. A slight covering of soil is useful on the planking, and effectually avoids the dangers suggested, of slipping of the animal. In speaking of single and double tracks, Mr. Geddes, the distinguished New York Engineer, observes: "Great speculative objection was made in the start to but one track; but we have the entire community with us, in deciding that, on all ordinary roads, one track is fully sufficient. The reason is this: the

travel in wet weather is entirely on the plank, except the turning out of light teams; but they seek the plank again as soon as they get around the team met or overtaken, so that the turn-out track is not cut with any continuous lengthwise ruts, and perhaps the wheels of not one team in a hundred turn-outs will strike the exact curve of another; consequently in our experience, our turn out track being well graded, passing the water easily and rapidly from its surface, remains perfectly hard and smooth."

In concluding, we think, that we have, in general terms, shown the advantages of Plank Roads, and believe that we have shown from reliable data:

1. That Plank Roads are more easily and cheaply constructed than Railroads.

2. That they are more easily kept in repair, are less perishable, and yield larger and more certain returns than Railroads to the stockholders.

3. That produce can be conveyed over them, at least twenty-five per cent. cheaper, and with no greater loss of time, than on a Railroad.

4. That they are better able to accommodate the country at large, because they can be carried to almost every man's door.

5. That from the material and power used, they are peculiarly adapted to our Western and Southern States.

6. That they create markets at home wherever they reach, adding wealth and population; and, generally, that they are better adapted to an agricultural country, from the fact that they can be constructed and kept in repair easily, and that farmers and planters can own and manage them so as to make the transient travel pay the expenses of carrying their own produce to market, and also to return a handsome dividend besides.

Now, in view of these facts and suggestions, it must readily occur to every farmer, within a reasonable distance of the line of a Plank Road, that he can better afford to take stock in such a company than any other of our industrial classes, because he can more cheaply pay for his shares—by *working them out* on the road. Every head of a family, with his teams, scrapers, shovels, and other implements which are always at hand in the cultivation, &c., of his farm, could, during those leisure times which every one occasionally enjoys, work out from one to a dozen shares, according to his force and proximity to the road, without any serious diversion of his attention from his regular vocation, or perceptive detriment to his crops. In fine, to all classes of farmers, no scheme was ever devised that afforded so rich an assurance of immediate and positive benefits to *them*, as the construction of plank roads in the neighborhood of their farms.

It is vitally important, also, to the business man in towns and cities; it effectually removes the embargo that frequently, for months, shuts out the country from the city by reason of bad roads.

Article VI.

FLORIDA: ITS SOIL AND PRODUCTS.

Although settled by Europeans at an early period in the history of this continent, yet Florida still remains in the condition of a new country. Containing no mines of the precious metals, it possessed little attraction for the more enterprising Spaniard of the sixteenth century: and the mildness of its climate was not calculated to inspire the few emigrants who settled on the coast, with the spirit of industry.

A few trading towns contained the principal part of the population of East and West Florida when they were ceded to the United States; and since the cession many causes have operated to prevent its settlement. Some of these have ceased; but others remain, which can only be removed by the growth and progress of improvement in other States. Florida is remote from the great highway of emigration from east to west; there are no great rivers flowing from other States through her territory, affording commercial and social communication with her neighbors, and, consequently, were the climate more conducive to habits of industry, the people of Florida could scarcely be expected to keep pace with the improvements of the age.

But, happily for Florida, its climate and productions are calculated to minister to the comfort and gratification of the inhabitants of the Middle and Northern States, and it will not be long before facilities of commercial and social intercourse will be opened between the Peninsula and the great West by means of railways, and Florida is destined to become the winter and spring garden of this region.

The rich luxuries of St. Augustine and of Tampa—whether of the garden, the orchard, or the ocean—can be transferred by railways to the market in St. Louis in less than two days, and in less than two more they may reach Pembina on our northern boundary.

Looking forward to this state of things, which we consider as comparatively near at hand, we regard Florida as the Italy of North America; and though less grand in its physical outlines, yet it is more abundant, perhaps, in the appliances of comfort and luxury.

Imagine the valley of the Mississippi to contain 100,000,000 inhabitants, and every fertile acre of Florida will be put in requisition to supply them with southern fruits and early vegetables.

Connected with the Northern and Western States by railways, Florida will attract vast numbers from every part of the Union, who will annually resort to her shores to enjoy the luxury of a winter season where frost is almost unknown.

We copy the following notice of the climate, soil, and productions of Florida, from the "*Ancient City*," where we find it credited to the "*Jacksonville News.*" EDITORS.

ON THE CLIMATE, SOILS AND PRODUCTIONS OF FLORIDA.

It is not merely in the tropical productions that East Florida possesses advantages over every other State in the Union; it is now established, beyond a doubt, that the Sea Island or long staple cotton (the production of which has heretofore been confined to a few small islands in South Carolina and Georgia) will grow luxuriantly even in the very centre of the peninsula. A superior quality of this article has been produced extensively on the Suwannee, and in the very centre of Alachua, as well as on the eastern coast. This important fact is no doubt attributable to the almost *insular* position of East Florida.

The importance which the production of this valuable staple must give to East Florida will be duly estimated when it is considered that it can be cultivated there without the fear of *competition*. The few islands in South Carolina and Georgia which yield this staple are now so nearly worn out that their average product per acre does not exceed one hundred and fifty pounds, and there is no other portion of the United States, with the exception of East Florida, where it can be produced. Neither can it be produced in Texas, Egypt, or India; and it is more than probable that there is in no part of the world a country of much extent so well adapted, both in climate and soil, to the production of this staple as East Florida.

The cultivation of this valuable staple in East Florida is well worthy the attention of planters in general, but especially those Southern planters who are wasting their energies in the profitless production of the common short staple cotton, which competition has already reduced to so low a price.

Although the lands of East Florida, which yield on the average three hundred pounds of Sea Island cotton, six hundred pounds of Cuba tobacco, and two thousand pounds of sugar per acre, can at this time be purchased at a much lower price than the common agricultural lands of the Northern and Middle States, or the common short staple cotton lands of the South, it is not in the nature of things that such can long be the case. It is quite certain that, as soon as the character of these lands becomes generally known, they will sell at a price corresponding with their intrinsic value, which, as has been already shown, is greater than that of any other lands in the United States.

Besides coffee, cocoa, sugar, Sea Island cotton, Cuba tobacco, rice, indigo, arrowroot, cochineal cactus, silk, Sisal hemp, New Zealand flax, oranges, lemons, limes, pineaples, olives, grapes, and other fruits and staples too numerous to detail, East Florida

produces corn, potatoes, cabbages, and, in short, all the vegetables that are known in the Northern States.

The climate of Florida does not allow corn to be planted *so close* as in the Northern States, and there are not, therefore, so many bushels produced to the acre. The good lands in the interior ordinarily produced from thirty to forty bushels per acre without the aid of manure of any kind, and it is doubtful whether the best corn lands in New York would produce more under similar culture. Much more might no doubt be accomplished by the people of Florida with the aid of manure, rotation of crops, and judicious culture, and it is to be hoped that they will resort to these expedients to preserve the fertility of their lands from deterioration.

With regard to roots, it requires the whole of their summer in the Northern States to produce a single crop. In Florida, on the contrary, a crop of Irish potatoes and a crop of sweet potatoes or yams can, with great facility, be produced on the same land within the year. If Florida cannot rival the North in the amount of the production of Irish potatoes per acre in a single crop, she accomplishes at least as much by producing two crops within the year on the same land, one crop being planted in January and the other in July. But admitting that Florida is inferior to the North in the production of *Irish* potatoes, she has still the sweet potato or yam, (a more valuable root,) which ordinarily produces as much per acre as the Irish potato yields in the North.

There is no soil and climate better adapted to the production of turnips and ruta bagas than those of East Florida. It is common to see turnips of eight pounds weight growing in poor sandy soil. East Florida certainly surpasses the North in the production of turnips and ruta bagas, both as to the amount per acre and the size and quality of the roots.

With very little care and attention East Florida enjoys every delicacy of vegetable culture at all seasons of the year. Beets, onions, egg-plants, carrots, lettuce, celery, cauliflowers, &c., of superior size and quality, are produced with the most indifferent culture. Watermelons, canteloups, pumpkins, cucumbers, and in short every thing that grows upon vines come to great perfection in East Florida.

Every one knows that, in the North, tenacious clayey soils *bake* or consolidate, from the drying effect of a summer's sun or the beating of heavy winter rains, to such a degree as to constitute the principal annual labor of the cultivator to restore them to a fine tilth again for the reception of seed. This never occurs in East Florida; principally because the most clayey soils in the State contain an intermixture of a large proportion of organic matter in a state of decomposition, which with a due proportion of very fine sand, imparts to them a porous character, not very susceptible of induration or agglutination. Indeed, so easily is land in East

Florida annually reduced to the finest tilth, that it is not an unusual thing for such as will produce three hogsheads of sugar to the acre, to be broken up, by a single horse and plough, to the depth of six inches or more. This is, therefore, an important advantage enjoyed by Florida land in its preparation and culture over most of the lands in the North; and it leads to the inevitable conclusion that *less labor* is requisite in Florida to produce similar crops than is indispensably necessary in the North; for it will be readily perceived that the same cause which saves labor in the preparation of the soil also saves labor in its culture. No description of soil in the country requires more than one ploughing to prepare it fully for the reception of any crop which it produces; and but few crops receive more than one ploughing in their culture. Many crops of corn in Alachua, of from thirty to forty bushels per acre, have been made with a single hoeing and thinning, and a single ploughing subsequently. Sweet potatoes are always made with a single ploughing and a few pickings over to free them from weeds, &c. Turnips, ruta bagas, sugar beets, &c., if sown as they should be in August or September, require no subsequent culture to produce as large crops of either of them as can be grown in New York or Pennsylvania. Even sugar, cotton, and tobacco receive less labor in the preparation of the soil for their reception, and much less after-culture, than is given to a crop of corn in New York. There can, in short, be no doubt of the fact that similar crops receive and require much less labor for their production in East Florida than in the Northern States.

The general topography of East Florida may be characterized as that of a low country, so that the surface, in most of the level pine lands, is placed within the reach of a constant supply of moisture, derived from the sub-soil by solar influence. This, together with the heavy dews which generally prevail, accounts for the luxuriant covering of grass and constant verdure which the whole face of the country presents even in the dryest seasons.

A large proportion of a Northern farm is necessarily appropriated to the production of grasses for hay to sustain the stock during a dreary winter of half a year's duration. This is entirely unnecessary in East Florida, where perennial pastures, sufficient to feed any number of cattle or horses, exist naturally, or may be formed artificially with but little labor, by making the requisite enclosures; and where the winters are so mild that there is never any necessity for housing stock. So numerous were the herds of cattle in Alachua before the war that from 7,000 to 10,000 could be seen grazing at once on Payne's prairie; and there was a single grazier on the Wacasassa whose stock had increased in the course of a few years to the number of 3,000 without any other expense than that of *herding* them.

In most parts of Florida hogs thrive well, and fatten without

any other support than that which they derive from the abundant roots and mast of the country.

There is certainly no portion of the United States where game and fish are so abundant as in East Florida. The fact that a large body of Indians supported themselves well for the space of seven years, while *hunted themselves* by an army of 5,000 men, is some evidence in proof of this assertion. It was common before the war for a good hunter to kill seven deer of a day, and multitudes of these animals were slaughtered merely for their skins. The country abounds in turkeys, partridges, geese, ducks, curlew, and various other species of smaller game.

The whole coast of Florida, to the extent of at least 600 miles, abounds in the finest fish, and the oysters are not surpassed by any in the world in size and flavor. Sheephead, grouper, redfish, mullet, green turtle, &c., are to be found in inexhaustible quantities at almost every point both of the eastern and western coast; and the numerous lakes, rivers and creeks of the interior teem with fresh-water fish and the most delicious species of soft-shell turtle.

But these are objects of minor consideration which serve to convey but a feeble idea of the importance which its geographical position, its climate, and its soil give to East Florida. The vast amount of soil in the peninsula capable of producing Sea Island cotton, Cuba tobacco, and sugar cane, (all objects of human consumption, of the utmost importance not only to the consumer but to the whole country,) and its fine adaptation of climate to their successful production, must form the basis of a degree of prosperity far surpassing that enjoyed by any of the States, north of her.

The great advantages to be derived from the culture of the orange, lemon, and lime, in East Florida, is a subject little known or appreciated, out of the State. It presents a field for profitable enterprize, unequalled in the United States. "The insect," which for eight years had desolated the beautiful groves of these fruits, which adorned the banks of the St. John's, is rapidly disappearing; and the trees assuming, once more, their healthy vigor and beautiful verdure. The crop of fruit this year, I understand, promises to be an abundant one.

There is no culture in the world, by which the foundation for an independent fortune can be laid, at the expense of so small an outlay, as the culture of the orange and lemon in East Florida. The method of establishing groves, by transplanting the sour orange trees from the hammocks, where they abound, in the wild state,—and which has been in successful practice for several years,—is of great importance; in the first place, because it does away with the difficulty and expense of procuring sweet trees; and in the second place, because the sour trees planted and budded, will bear much sooner than sweet trees from a nursery.

The sour trees may be dug up carefully in the hammocks, at any time from October to June. They should be topped about four

feet from the ground and carefully planted and watered. In about three months shoots, large enough to be budded, will grow out. The buds are taken from sweet trees and carefully inserted into the young shoots, just as peach trees are budded at the North. It is common for trees to bear the sweet orange in eighteen months from the budding. If the sour trees are selected from the hammock of good size, (and they can be found of all sizes,) in three years they will be competent to bear a thousand oranges each, and will go on, every year increasing in size and production.

This culture is well adapted to persons of small capital, whose health requires a residence in Florida. A suitable piece of land is easily obtained, on which provision can be easily raised, and an extensive grove established, at a very moderate expense. But to farmers and planters this culture presents also advantages over those of any other Southern State; for without interfering, at all, with their agricultural operation they can, gradually, and without the outlay of a dollar, plant an orange grove, that may ultimately yield more than all their other productions.

The longevity of the orange tree is another thing which invests it with a more permanent character than common fruit trees. It lives and flourishes to a very advanced age. There are orange trees now living, in the city of Rome, that are known to be more than three hundred years old! So that an orange grove, when once established, will not only last a man's life time, but become a valuable inheritance for his children.

COMMERCE OF NEW YORK.

The following statistics of the commerce of New York for the first quarter of the current year, are calculated, as we believe, to sustain the opinions expressed in the leading article of the present number. The Editor of the *Merchants' Magazine*, to whom we are indebted for this article, remarks:

"The business of the Port of New York continues to increase beyond all precedent, and some are seriously alarmed as each month's returns swell the aggregate expansion. There is less cause to fear, however, in this flow of prosperity when we consider that nearly all branches of business have received a corresponding impulse. The buoyancy has not been confined to real estate or to stocks alone; the imports of merchandise, about which many are so fearful, have not increased in proportion to the exports; and the expansion of the currency has been, not for speculative purposes, but to meet the wants of increased regular business, and has been based on a large increase of specie capital. The increased imports, either for the last month, or the quarter ending

1st of April, are not made up, as many seem to suppose, chiefly of dry goods, the increase in other merchandise being full as large in proportion, as will be seen by the following comparative statement:—

IMPORTS AT NEW YORK IN MARCH.

	1851.	1850.	1849.
Dutiable merchandise.....	$11,719,579	$8,149,821	$7,928,470
Free merchandise.....	982,530	1,364,182	591,849
Specie, including California gold dust.....	2,241,348	907,634	130,895
Total.....	$14,943,457	$10,421,637	$8,651,214
Of which were dry goods	5,648,544	4,101,670	3,990,802

Deduct, now, the specie, of which the receipts for the last month include $1,970,843 from California, and we have an increase in all the other imports over the corresponding month of last year of $3,188,106, of which only $1,546,874 were in dry goods, and the remainder, $1,641,232, in general merchandise, showing the imports to be as equally divided as possible. A similar state of things is found by examining the exhibit for the quarter:—

IMPORTS AT NEW YORK FOR JANUARY, FEBRUARY AND MARCH.

	Dutiable.	Free.	Specie.	Total.	Total, exclusive of specie.	Of which were dry goods.
1851..	$35,793,788	$3,128,216	$5,875,501	$44,797.505	$38.922,004	$21.989,327
1850..	27,320,278	2,464.445	1,922,878	31,707.601	29.784,723	17,057,136
1849..	24,019,966	1,402,500	209,918	25,632,384	25,422,466	15,095,102

This shows that the increase is regularly and nearly equally divided between foreign fabrics and general merchandise.

The exports for the month show a marked increase over the corresponding period of previous years:—

EXPORTS AT NEW YORK FOR MARCH.

	Domestic produce.	Foreign.	Specie.	Total.
1851.....	$3,976,198	$345,615	$2,368,861	$5.690,674
1850.....	2,865,634	270,310	172,087	3,308,031
1849.....	2,687,803	339,591	86,506	3,104,900
1848.....	2,184,194	316,129	452,507	2,952,830
1847.....	3,768,574	134,437	243,887	4,146,898
1846.....	1,463,529	188,288	257,781	1,909,598

The shipments for the last month of domestic produce show an increase of more than 30 per cent. over the same period of last year. The exports for the quarter are also larger than for any previous year if we except the year of "famine" abroad:—

EXPORTS FOR JANUARY, FEBRUARY, AND MARCH.

	Domestic produce.	Foreign.	Specie.	Total.
1851.....	$9,714,728	$1,176,091	$4,642,831	$15,533,650
1850.....	8,188,538	1,083,894	541,156	9,813,589

1849.....	6,987,547	834,559	315,939	8,138,045
1848.....	6,620,237	991,763	2,069,250	9,681,250
1847.....	10,196,859	292,057	321,615	10,810,531
1846.....	5,076,183	522,323	406,243	6,004,749

These statements of the imports and exports would convey an erroneous impression in regard to the actual state of our foreign trade but for some explanatory remarks. The figures represent the *value* and not the *quantity* of the receipts and shipments. Almost every description of foreign dry goods has advanced abroad, since this time last year, nearly enough to account for the difference in the total entries, without implying an excess of quantity. This is partially true, also, of the exports, as many of our staples have been entered at a higher rate. It may not be uninteresting, in this connection, to exhibit the comparative *quantity* of some of the principal articles of produce which have left this port during the first quarter of this and the previous year:—

		1851.	1850.
Ashes—Pots.....		4,783	4,547
Pearls.....		881	967
Breadstuffs—Corn.....	bush.	96,565	1,083,230
Flour.....	bbls.	115,869	116,490
Wheat.....	bush.	72,814	55,380
Provisions—Beef.....	bbls.	6,281	16,967
Pork.....		8,935	18,056
Lard.....	kegs	9,090	64,043
Cotton.....	bales	83,837	57,972

The exports of specie have been large, but bear no comparison with the actual receipts. In the latter item our entries at the Custom-house are seriously at fault, as the larger portion of the California gold dust is brought in the hands of passengers. This statement was at first received with incredulity, and the large capitals displayed in the newspaper extras on the arrival of each steamer from the Isthmus, were looked upon by the more cautious as mere traps to encourage emigration. But the returns from the Mint not only confirm these reports, but actually go beyond them; the deposits for the quarter being double the nominal imports. The following will exhibit the movement in specie for the quarter:—

Exports from this port.....	$1,266,281	$1,007,689	$2,368,861	$4,642,831
Imports from abroad.....	210,455	164,031	270,505	644,991
Nominal imports from California.	2,478,239	781,428	1,970,843	5,230,510
Receipts of gold dust at the Mint	4,940,000	2,860,000	2,634,000	10,434,000
Receipts of other bullion.....	60,000	147,700	45,400	253,100

Here we have in our nominal imports from California but $5,230,510, while the actual receipts at the Mint, acknowledged from that source, amount to $10,434,000. Considerable amounts in gold dust have also been included in our exports, so that the quarter's receipts from California at this port alone are upwards of ten and a half millions.

STATEMENT OF THE COMMERCE OF EACH STATE AND TERRITORY, FROM JULY 1, 1849, TO JUNE 30, 1850.

States.	Value of Exports. In American vessels.	In Foreign vessels.	Total.	In American vessels.	In Foreign vessels.	Total.	Total Exports.	Value of Imports. In American vessels.	In Foreign vessels.	Total.
Maine	$1.135.998	$400.820	$1.536.818	$14.561	$5.530	$29.094	$1.556.912	$609.155	$247.256	$856 411
New Hampshire	2.835	5.887	8.722	.....	205	205	8.927	19.962	29.117	49.079
Vermont	404.749	.....	404.749	26,157	.....	26.157	430.906	463.092	.....	463,092
Massachusetts	7.000.103	1.253.370	8.253.473	1.898.497	529.793	2.428.290	10.681.763	22.106.011	8.268.673	30,374,684
Rhode Island	205.969	330	206.299	9.966	.....	9.966	216.265	251.708	6.595	258.303
Connecticut	241.262	.....	241.262	668	.....	668	241.930	311.927	60.463	372.390
New York	33.934.409	7.568.391	41.502.800	7.086.687	4.123.302	11.209.989	52.712.789	88.147.721	22.975.803	111.123.524
New Jersey	.....	1.655	1.655	.....	.....	.....	1.655	.....	1.494	1.494
Pennsylvania	3.428.150	621.314	4.049.464	363.225	88.917	452.142	4.501.606	10.795.462	1.270.692	12.066.154
Delaware	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maryland	4.657.185	1.932.296	6.589.481	250.861	127.011	377.872	6.967.353	5.529.682	594.519	6.124.201
Dist. of Columbia	72.175	8.213	80.388	200	.....	200	80.588	59.219	600	59.819
Virginia	2.365.241	1.047.917	3.413.158	2.488	.....	2.488	3.415.546	172.878	253.721	426.599
North Carolina	259.616	156.885	416.501	.....	.....	.....	416.501	179.249	144.443	323.692
South Carolina	6.467.201	4.979.691	11,446.892	400	508	908	11.447.800	1.313.658	620.127	1.933.785
Georgia	2.622.152	4.929.791	7.551.943	.....	.....	.....	7.551.943	306.883	330.081	636.964
Florida	1.113.978	1.493.990	2.607.968	15.656	.....	15.656	2.623.624	30.241	65.468	95.709
Alabama	4.601.515	5.943.343	10.544.858	.....	.....	.....	10.544.858	108.134	757.228	865.362
Louisiana	20.927.751	16.770.526	37.698.277	328.930	78.143	407.073	38.105.350	8.107.929	2.652.570	10.760.499
Mississippi	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tennessee	.....	.....	.....	.....	.....	.....	.....	27.966	.....	27.966
Missouri	.....	.....	.....	.....	.....	.....	.....	359.643	.....	359.643
Ohio	117.989	99.543	217.532	.....	100	100	217.632	398.999	183.505	582.504
Kentucky	.....	.....	.....	.....	.....	.....	.....	190.987	.....	190.987
Michigan	57.232	74.813	132.045	.....	.....	.....	132.045	144.102	.....	144.102
Illinois	1.232	16.437	17.669	.....	.....	.....	17.669	7.783	7.922	15.705
Texas	.....	24.958	24.958	.....	.....	.....	24.958	14.652	10.998	21.650
California	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oregon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	$89.616.742	$17.330.170	$136.946.912	$9.998.299	$4.953.509	$14.951.808	$151.898.720	$139.657.043	$38.481.275	$178.138.318

STATEMENT EXHIBITING A CONDENSED VIEW OF THE TONNAGE OF THE SEVERAL DISTRICTS OF THE UNITED STATES ON THE 30TH OF JUNE, 1850.

DISTRICTS.	Registered tonnage.	Enrolled & licensed tonnage.	Total tonnage of each district.
	Tons and 95ths.		
Passamaquoddy ..... Maine	10.530 73	9.454 73	19.985 51
Machias ..... do	2.267 65	19.050 67	21.318 37
Frenchman's Bay ..... do	1.643 21	30.525 27	32.168 48
Penobscot ..... do	5.713 40	31.237 38	36.950 78
Belfast ..... do	13.869 79	31.725 48	45.595 32
Bangor ..... do	9.362 31	15.906 49	25.268 80
Waldoborough ..... do	38.483 13	57.847 25	96.330 38
Wiscasset ..... do	6.024 41	12.217 08	18.241 49
Bath ..... do	76.608 65	27.017 25	103.625 90
Portland ..... do	60.304 43	26.197 86	86.502 34
Saco ..... do	1.570 00	1.153 30	2.723 30
Kennebunk ..... do	9.101 34	2.247 82	11.349 21
York ..... do	.....	1.361 45	1.361 45
Portsmouth .... New Hampshire	14.978 92	8.117 41	23.096 38
Burlington ..... Vermont	.....	4.530 32	4.530 32
Newburyport .. Massachusetts	16.213 57	7.048 29	23.261 86
Ipswich ..... do	.....	578 39	578 39
Gloucester ..... do	2.873 08	19.601 00	22.474 08
Salem ..... do	20.316 74	8.599 34	28.916 13
Beverly ..... do	.....	3.173 04	3.173 04
Marblehead ..... do	1.349 11	5.493 31	6.842 42
Boston ..... do	270.510 09	50.177 17	320.687 26
Plymouth ..... do	3.966 88	6.755 31	10.722 24
Fall River ..... do	2.251 08	10.850 76	13.101 84
New Bedford ..... do	119.026 45	8.933 69	127.960 09
Barnstable ..... do	5.520 32	85.581 67	91.102 04
Edgartown ..... do	5.464 26	2.145 28	7.609 54
Nantucket ..... do	25.837 80	3.174 83	29.012 68
Providence ..... Rhode Island	9.177 14	7.534 64	16.711 78
Bristol ..... do	11.247 12	1.951 27	13.198 39
Newport ..... do	5.644 33	4.934 21	10.578 54
Middletown ..... Connecticut	95 55	12.033 72	12.129 32
New London ..... do	23.364 23	17.120 62	40.484 85
Stonington ..... do	13.188 47	6.724 03	19.912 50
New Haven ..... do	4.994 65	10.736 70	15.731 40
Fairfield ..... do	868 35	13.960 27	24.828 62
Champlain ..... New York	.....	2.745 74	2.745 74
Sacket's Harbor ..... do	.....	8.123 57	8.123 57
Oswego ..... do	.....	22.404 78	22.404 78
Niagara ..... do	.....	732 73	732 73
Genesee ..... do	.....	1.036 74	1.036 74
Oswegatchie ..... do	.....	1.985 34	1.985 34
Buffalo Creek ..... do	.....	39.679 00	39.679 00
Sag Harbor ..... do	10.953 68	4.211 69	15.165 42
Greenport ..... do	4.236 29	4.319 46	8.555 75
New York ..... do	441.336 76	394.230 80	835.867 61
Cape Vincent ..... do	.....	2 496 92	2.496 92
Cold Spring ..... do	2.376 40	1.478 90	3.855 35
Perth Amboy ..... New Jersey	133 69	21.950 82	22.084 56
Bridgetown ..... do	.....	14.472 24	14.472 24
Burlington ..... do	.....	7.578 67	7.578 67
Camden ..... do	.....	9.569 32	9.569 32
Newark ..... do	77 58	6.551 05	6.628 63

STATEMENT—Continued.

DISTRICTS.	Registered tonnage.	Enrolled & licensed tonnage.	Total tonnage of each district.
	Tons and 95ths.		
Little Egg Harbor ..New Jersey	.....	6.182 75	6.182 75
Great Egg Harbor ....do	.....	14.084 14	14.084 14
Philadelphia ....Pennsylvania	64.295 10	142.292 72	206.497 82
Presque Isle ....do	.....	7.870 31	7.870 31
Pittsburg ....do	.....	44.571 30	44.571 30
Wilmington ....Delaware	1.651 68	7.808 70	9.460 43
New Castle ....do	.....	7.259 14	7.259 14
Baltimore ....Maryland	90.669 82	58.349 51	149.019 38
Oxford ....do	.....	12.343 46	12.343 46
Vienna ....do	.....	15.478 01	15.478 01
Snow Hill ....d	.....	9.511 51	9.511 51
St. Mary's ....do	.....	2.184 91	2.184 91
Town Creek ....do	.....	2.226 81	2.226 81
Annapolis ....do	.....	2.323 17	2.323 17
Georgetown ..District of Columbia	2.796 19	14.214 42	17.010 61
Alexandria ....Virginia	2.887 31	5.850 49	8.737 80
Norfolk ....do	10.542 10	13.592 79	24.134 89
Petersburg ....do	048 76	1.759 27	2.708 08
Richmond ....do	3.160 80	5.297 40	8.458 25
Yorktown ....do	.....	4.806 70	4.806 70
Tappahannock ....do	503 26	5.320 93	5.824 24
Accomac C. H. ....do	.....	4.082 75	4.082 75
East River ....do	.....	4.868 61	4.868 61
Yeocomico ....do	.....	3.283 90	3.283 90
Cherrystone ....do	.....	1.232 08	1.232 08
Wheeling ....do	.....	5.933 70	5.933 70
Wilmington ....North Carolina	9.123 51	6.074 76	15.198 32
Newbern ....do	1.518 32	3.689 25	5.207 57
Washington ....do	1.097 61	4.605 49	5.703 15
Edenton ....do	127 07	1.018 09	1.145 16
Camden ....do	1.269 11	10.678 88	11.948 04
Beaufort ....do	613 69	1.645 79	2.259 53
Plymouth ....do	1.183 88	1.144 54	2.328 42
Ocracoke ....do	.....	1.428 15	1.428 15
Charleston ....South Carolina	15.377 48	17.915 10	33.292 58
Georgetown ....do	1.749 19	1.030 31	2.779 50
Beaufort ....do	.....	.....	.....
Savannah ....Georgia	10.437 16	9.293 67	19.730 83
Sunbury ....do	.....	.....	.....
Brunswick ....do	.....	533 81	533 81
Hardwick ....do	.....	.....	.....
St. Mary's ....do	491 48	933 87	1.425 40
Pensacola ....Florida	1.221 11	572 63	1.793 74
St. Augustine ....do	.....	.....	.....
St. Mark's ....do	.....	353 07	353 07
St. John's ....do	.....	309 72	309 72
Apalachicola ....do	.....	2.050 36	2.050 36
Key West ....do	4.415 46	2.350 09	6.765 55
Mobile ....Alabama	7.403 67	16.753 88	24.157 60
Pearl River ....Mississippi	.....	1.367 34	1.367 34
Vicksburg ....do	.....	460 28	460 28
New Orleans ....Louisiana	83.668 55	165.040 49	248.709 09
Teche ....do	.....	1.380 71	1.380 71

STATEMENT—Continued.

DISTRICTS.	Registered tonnage.	Enrolled & licensed tonnage.	Total tonnage of each district.
	Tons and 95ths.		
Nashville ..... Tennessee	.....	3.776 05	3.776 05
Louisville ..... Kentucky	.....	14.820 19	14.820 19
St. Louis ..... Missouri	.....	28.907 47	28.907 47
Chicago ..... Illinois	.....	21.242 17	21.242 17
Cuyahoga ..... Ohio	.....	35.815 84	35.315 84
Sandusky ..... do	.....	7.328 49	7.328 49
Cincinnati ..... do	.....	17.188 80	17.188 80
Miami ..... do	.....	3 629 20	2.629 20
Detroit ..... Michigan	.....	36.893 89	36.893 89
Michilimackinac ..... do	.....	1.250 55	1.250 55
Galveston ..... Texas	415 92	2.892 88	3.308 85
Saluria ..... do	.....	588 52	588 52
Astoria ..... Oregon	1.063 43	.....	1.063 43
San Francisco ..... California	15.285 12	2.306 65	17.591 77
Point Isabel ..... Texas	401 35	274 28	675 63
Total	1.585.711 22	1.949.743 01	3.535.454 23

TREASURY DEPARTMENT,
Register's Office, November 30, 1850.

TOWNSEND HAINES, *Register.*

STATEMENT SHOWING THE NUMBER AND CLASS OF VESSELS BUILT AND THE TONNAGE THEREOF IN EACH STATE AND TERRITORY OF THE UNITED STATES, FOR THE YEAR ENDING JUNE 30TH, 1850.

STATES.	Class of vessels.					Total number of vessels built.	Total tonnage.—Tons and 95ths.
	Ships.	Brigs.	Schooners.	Sloops and Canal boats.	Steamers.		
Maine	127	75	115	3	6	326	91.211 73
New Hampshire	8	...	2	..	.	10	6.914 32
Vermont	...	...	..	..	1	1	77 41
Massachusetts	51	19	46	3	2	121	35.836 14
Rhode Island	5	...	5	3	1	14	3.587 15
Connecticut	3	7	27	9	1	47	4.819 79
New York	26	4	50	112	32	224	58.342 73
New Jersey	1	1	35	17	3	57	6.201 68
Pennsylvania	7	1	39	107	31	185	21.409 93
Delaware	...	...	12	3	1	16	1.848 82
Maryland	16	5	125	..	4	150	15.964 80
District of Columbia	...	...	..	8	.	8	288 17
Virginia	1	1	27	..	5	34	3.584 04
North Carolina	1	2	23	2	5	33	2.651 59
South Carolina	...	...	..	..	.	..	.....
Georgia	...	...	2	..	3	5	683 82
Florida	...	...	2	..	.	2	79 75
Alabama	...	...	3	..	.	3	113 66
Mississippi	...	...	..	..	.	..	.....
Louisiana	1	...	16	3	4	24	1.592 38
Tennessee	...	...	..	..	.	..	.....
Kentucky	...	...	..	..	34	34	6.460 69
Missouri	...	...	..	..	5	5	1.353 82
Illinois	...	2	7	3	1	13	1.691 21
Ohio	...	...	4	11	16	31	5.214 62
Michigan	..	...	5	6	3	14	2.061 63
Texas	...	...	..	..	1	1	105 54
Oregon	...	...	2	..	.	2	122 42
Total	217	117	547	290	159	1.360	272.218 54

TREASURY DEPARTMENT,
Register's Office, November 30th, 1850.

TOWNSEND HAINES, *Register.*

PORK PACKING IN 1850—'51.

As usual, we have looked to Cincinnati for a complete statement of pork, brought to the Western markets during the season of 1850—51; but we have met with no statement even up to the present time, which can be regarded as complete. The following statistics are taken from the Cincinnati Price Current of the 28th ult., and although not as complete as could be desired, are, perhaps, sufficiently full for all commercial purposes. We find no account of the number of hogs packed on the Missouri river, where 46,300 were slaughtered in 1848-9. Towns on the Mississippi river and probably in other parts of the valley have also been omitted in the statement given below. The statement as revised in the Cincinnati Price Current, stands as follows:

	1850–'51.	1849–'50.	1850–'51.	1849–'50.
Ohio*			398,556	553,745
Indiana			372,497	416,675
Kentucky, including Louisville, Jeffersonville and New Albany			205,414	201,000
Tennessee: Cumberland Valley			30,000	40,000
Illinois river—Beardstown	35,000	37,000		
Alton	25,000	40,000		
Meredocia	9,000	9,000		
Naples	4,000	6,500		
Peoria	30,000	21,000		
Pekin	19,000	28,000		
Canton	12,000	24,000		
Liverpool	2,400	400		
Springfield	8,000	19,500		
Chilicothe	4,000	3,000		
Lacon	13,000	11,600		
Peru	4,000	15,000		
Total Illinois			165,400	215,800
Mississip. river: St. Louis	85,000	124,000		
Hannibal	17,000	24,000		
Quincy	20,000	29,000		
Keokuk	22,000	19,000		
Burlington	19,000	29,000		
Total on Mississippi river			161,000	225,000
Total in 1849–'50				1,652,220
Total in 1850–'51				1,332,867
Decrease				319,353

* The number packed in Cincinnati, in 1850–'51, was 343,529, against 401,755 the preceding year.

In addition to this the deficiency in weight is supposed to be 10 per cent. The average weight of hogs in 1850 being set down at 185 lbs. against 205 as the weight of the preceding year.

The author of the article estimates the decrease in weight, when compared to the amount of pork brought to market the preceding season, 105,360,370 lbs., or one third less than the amount of 1849–'50.

He further says that "in addition to the falling off in the number packed in the West, there is a deficiency of 69,000 in the hogs driven south, as follows:

	1849-'50.	1850–'51.
Through Cumberland Gap	43,000	21,000
Through Ashville	81,000	40,000
Total	124,000	61,000
	61,000	
Deficiency	63,000	

It is proper to remark that although the foregoing tables may in general be correct in respect to the amount of pork received at the points designated, yet it should be remembered that the aggregate of 1,332,869 falls considerably below the number of hogs slaughtered for market during the season of 1850–51. The packing points in Missouri, Illinois, and Iowa not included in the above, must have slaughtered 200,000 head at least, which should be added to the stock produced for market; making the crop of last year 1,532,869.

This is an important item in the commerce of the country, and if overlooked by the dealers, may occasion serious blunders in trade.

COINAGE AND MOVEMENT OF SPECIE.

[From the Merchants' Magazine.]

One of the most important features connected with commercial transactions, since our last, has been the movement of specie—large quantities of which have been received from California, and an unusual quantity exported from New York from January 1st to May 15th:—

January.	February.	March.	April.	May 1 to 15.	Total.
$1,266,291	$1,007,689	$2,368,861	$3,482,182	$2,432,605	$10,557,628

The imports and exports at Boston for the month of April were as follows:

	Gold.	Silver.	Total.		Gold.	Silver.	Total.
Imports....	$51,800	$5,702	$57,502	Exports..	$119,161	$3,300	$122,461

The following will show the total receipts, at our mints, of gold from California from its first discovery to May 1st, 1851 :—

	Philadelphia Mint.	New Orleans Branch Mint.	Total.
During the year 1848.....	$44,177	.....	$44,177
During the year 1849.....	5,481,430	$666,079	6,147,509
During the year 1850.....	31,500,000	4,574,062	36,074,062
Four months of 1851.....	13,219,506	4,000,000	17,219,500
Total.....	$50,245,107	$9,240,141	$59,485,248

The news from California, by late steamers, confirms previous statements of the increased productiveness of the mines, and the probability is, therefore, that the receipts from that quarter for the current year will be nearly or quite as large as the total previous receipts since the gold was first discovered.

Notwithstanding the large exports of specie noticed above, the money market has remained perfectly easy. It is true we have not had a return to the very low rates of last year, but capital has been abundant at 5½ and 7 per cent. for endorsed paper, and 8 and 10 per cent. for good single names.

COMMERCIAL REGULATIONS.

An Act to limit the liability of ship-owners, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no owner or owners of any ship or vessel shall be subject or liable to answer for or make good to any one or more person or persons any loss or damage which may happen to any goods or merchandise whatsoever which shall be shipped, taken in, or put on board any such ship or vessel, by reason or by means of any fire happening to or on board the said ship or vessel, unless such fire is caused by the design or neglect of such owner or owners: *Provided*, That nothing in this act contained shall prevent the parties from making such contract as they please, extending or limiting the liability of the ship-owners.

Sec. 2. *And be it further enacted*, That if any shipper or shippers of platina, gold, gold dust, silver, bullion, or other precious metals, coins, jewelry, bills of any bank or public body, dia-

monds or other precious stones, shall lade the same on board of any ship or vessel without, at the time of such lading, giving to the master, agent, owner or owners of the ship or vessel receiving the same, a note in writing of the true character and value thereof, and have the same entered on the bill of lading therefor, the master and owner or owners of the said vessel shall not be liable, as carriers thereof, in any form or manner. Nor shall any such master or owners be liable for any such valuable goods beyond the value and according to the character thereof so notified and entered.

Sec. 3. *And be it further enacted*, That the liability of the owner or owners of any ship or vessel for any embezzlement, loss, or destruction, by the master, officers, mariners, passengers, or any other person or persons, of any property, goods, or other merchandise, shipped or put on board of such ship or vessel, or for any loss, damage, or injury by collision, or for any act, matter, or thing, loss, damage or forfeiture, done, occasioned, or incurred without the privity or knowledge of such owner or owners, shall in no case exceed the amount or value of the interests of such owner or owners respectively in such ship or vessel, and her freight then pending.

Sec. 4 *And be it further enacted*, That if any such embezzlement, loss, or destruction shall be suffered by several freighters or owners of goods, wares, or merchandise, or any property whatever, on the same voyage, and the whole value of the ship or vessel, or merchandise, or any property whatever, on the same voyage, and the whole value of the ship or vessel, and her freight for the voyage, shall not be sufficient to make compensation to each of them, they shall receive a compensation from the owner or owners of the ship or vessel, in proportion to their respective losses; and for that purpose the said freighters and owners of the property, and the owner or owners of the ship or vessel, or any of them, may take the appropriate proceedings, in any court, for the purpose of apportioning the sum for which the owner or owners of the ship or vessel may be liable amongst the parties entitled thereto. And it shall be deemed a sufficient compliance with the requirements of this act, on the part of such owner or owners, if he or they shall transfer his or their interest in such vessel and freight, for the benefit of such claimants, to a trustee, to be appointed by any court of competent jurisdiction, to act as such trustee for the person or persons who may prove to be legally entitled thereto, from and after which transfer all claims and proceedings against the owner or owners shall cease.

Sec. 5. *And be it further enacted*, That the charterer or charterers of any ship or vessel, in case he or they shall man, victual, and navigate such vessel at his or their own expense, or by his or their own procurement, shall be deemed the owner or owners of such vessel, within the meaning of this act; and such ship or

vessel, when so chartered, shall be liable in the same manner as if navigated by the owner or owners thereof.

SEC. 6. *And be it further enacted*, That nothing in the preceding sections shall be construed to take away or affect the remedy to which any party may be entitled against the master, officers or mariners, for or on account of any embezzlement, injury, loss or destruction of goods, wares, merchandise, or other property, put on board any ship or vessel, or on account of any negligence, fraud, or other malversation of such master, or mariners, respectively; nor shall anything herein contained lessen or take away any responsibility to which any master or mariner of any ship or vessel may now by law be liable, notwithstanding such master or mariner may be the owner or part owner of the ship or vessel.

SEC. 7. *And be it further enacted*, That any person or persons shipping oil of vitriol, unslacked lime, inflammable matches, or gunpowder, in a ship or vessel taking cargo for divers persons on freight, without delivering at the time of shipment, a note in writing, expressing the nature and character of such merchandise to the master, mate, officer, or person in charge of the landing of the ship or vessel, shall forfeit to the United States $1,000.

This act shall not apply to the owner or owners of any canal boat, barge or lighter, or to any vessel of any description whatsoever used in inland navigation.

Approved, *March* 3, 1851.

ANNUAL WINE FAIR AT ST. LOUIS.

The exhibition of Missouri wines which took place on the 31st ult. was calculated to confirm the friends of grape growing in the opinion that no branch of industry pursued in our State, is more profitable than the cultivation of the vine.

Thirty-six samples of the produce of Missouri were exhibited, and submitted to the test of the committee appointed to award the premium of $100.00 offered by Alexander Kayser, Esq., for the best sample of the vintage of 1850.

The following gentlemen were competitors for the prize:

GASCONADE COUNTY:

1. Jacob Rommel,.....2 bottles, 1 do. 1 do.
2. Michael Poeschel.....3 do.
3. Caspar Greis.....1 do.
4. Chris. Oehlschlager.....1 do.
5. Charles Teubner.....1 do.
6. J. G. Ackermann.....1 do.

7. Heinrich Rasche.....1 bottle.
8. Mathias Kleub.....1 do.
9. Ernst Heck.....2 do.
10. John F. Fricke.....1 do.
11. John Schmidt.....1 do. Virginia seedling.
12. Jacob Schmidt.....1 do.
13. Frederick Noe.....1 do.
14. David Wittman.....1 do.
15. C. Naegelin,.....1 do.
16. Francis H. Kieny.....2 do.

Widow Johanna Senn.....2 do.

St. Charles County.—Mr. Wilmot.....1 bottle.
Jefferson County.—Frederick Schmidt.....1 do.
do. Jacob Schmidt.....1 do.
Warren County.—Frederick Muench.....1 do.
Franklin County.—Adolphe Bichle.....1 do.
Moniteau County.—J. Cominder.....2 do.
St. Louis County.—Wm. Glasgow, Jr.,.....1 do.
Wm. Glasgow, Jr., (Sparkling Catawba),.....2 do.
St. Louis County.—Peter Weizenecker.....2 do.

The above were the competitors for the premium. In addition to these, specimens were present from the following places, which did not come within the terms of the competition:

Herman.—Rommel's premium wine of vintage of 1849, one bottle.

Edwardsville, Ill.—Two bottles, (Isabella).

Waterloo, Ill.—Dr. T. Bork, two bottles, (Catawba); one do. (Wilding).

Cincinnati.—Yeatman's premium Catawba, one bottle.

The Committee selected six samples from the whole number as being of nearly equal merit. These consisted of:

No. 4 produced by Jacob Rommel, of Hermann.
" 12 " by Henry Rasche, of "
" 17 " by Ernst Heck, of Gasconade county.
" 20 " by P. Weizenecker, of St. Louis county.
" 27 " by Frederick Muench, of Warren county.
" 31 " by Widow J. Senn, of Gasconade county.

The premium was awarded to Mr. Weizenecker. We regret that the report of the Committee contains so little information relating to the mode of cultivating and manufacturing pursued by the candidates for premiums. We extract the following remarks relating to a portion of the six choice specimens: No. 4, produced on an eastern slope, soil loamy mixed with sand. No. 12, gentle slope tilled with ditches, lever press. No. 31, southerly slope.

To our German citizens are we wholly indebted for the introduction of vine dressing as a distinctive branch of industry; and we are truly gratified in the assurance that their industry and skill have, thus far, been abundantly rewarded.

We look forward with the most lively interest to the time when the pleasant wines of Missouri shall expel alcoholic liquors from the shops and other places of public resort throughout the State; when, instead of indulging in the use of a poison destructive alike to the physical and moral man, our citizens shall rejoice in the use of a beverage calculated to warm and inspire the heart with generous emotions, while it imparts health and vigour to the constitution.

We regard the producer of wine as the most efficient promoter of the cause of temperance. We admire the philanthropy, zeal, and self-denial of the many worthy individuals who have devoted their time and talents to the cause of temperance, but we verily believe that one thousand Germans engaged in producing wine, would do more to promote this great cause, than all the temperance societies which have been, or ever will be, organized in the State. And we respectfully suggest to those philanthropic individuals, whose hearts are engaged in the temperance cause, that, in our judgment, the liberal policy adopted by Mr. Kayser, in offering premiums for the best specimens of Missouri wine, is worthy of imitation.

MANUFACTURES IN ST. LOUIS.

LEE, GAGE & CO'S. SAW AND SCALE FACTORY.

Amongst the many manufacturing enterprises which have been commenced in St. Louis within the last two or three years, we have noticed none which, in our judgment, promises to be more successful, than the Saw and Scale Factory of Messrs. Lee, Gage & Co., near Broadway, in the upper part of the city.

This, as we are informed, is the only establishment of the kind west of the Alleghany mountains, and when we contemplate the vast extent of country to be supplied with the commodity of saws from this point, we can scarcely assign a limit to the demand.

The establishment went into operation in January, 1850, and although the proprietors observed that caution which prudence always dictates in the commencement of a new branch of industry, we are informed that their business amounted to about $25,000 in the first year of their operations; and they calculate that their sales for the current year will amount to $40,000.

The machinery is propelled by a steam engine of 20 horse-power, and the establishment gives employment at present to 25 men.

There is manufactured at these works every variety of saws used in the various branches of the mechanic arts, including circular saws from three to sixty inches in diameter; counter, platform, hay, and car scales are also manufactured in the same establishment. The best English steel is used for all cast steel work; but American steel, made at Philadelphia and Pittsburgh, is used in the manufacture of the common mill and cross-cut saws. We are informed that much of the machinery was invented by the proprietors who, possessing a large share of that inventive genius which distinguishes the genuine New Englander, have made improvements calculated to facilitate, and, consequently, diminish the cost of production.

It always affords us gratification to learn that a Yankee is about to establish a new branch of industry in the West; for his instincts rarely ever mislead him in matters of business; and the success which is almost certain to attend his enterprises, ensures the permanent establishment of every branch of manufacture which he introduces. Bringing with him the habits and improvements of his native land and enjoying all the advantages pertaining to a location in the West, he requires but little time to demonstrate what the people of both the East and West seem unwilling to believe: that the manufacturer here can compete successfully with those of the East.

Messrs. Lee, Gage, & Co. have opened a ware room at No. 86 Main street for the sale of their goods; we commend their establishment to the patronage of all who desire to purchase articles in their line of business.

PACIFIC RAILROAD.

We are gratified to learn that the Directors of this great enterprise have agreed on the location of the first section, embracing thirty-nine miles. The following resolutions were adopted by the Board of Directors on the 18th inst:

Resolved, That the route through Chouteau Pond Valley, and the valley of the Des Peres, to the Maramec valley, and up that valley for a distance of about thirty-nine miles from St. Louis, commencing in St. Louis at Fourteenth street, be adopted as the first division of the Pacific Railroad.

Resolved, That not exceeding thirty per cent. upon the capital stock of the company shall be called in any one year, during the construction of the road.

We understand that the work will be put under contract in all this month and that the ground will be broke on the 4th of July.

The Intelligencer of the 19th inst. gives the following description of the line adopted by the Directors:

"The road is to begin at Fourteenth street, in the valley of Chouteau's Pond, and will run thence westwardly through the valley, until it reaches the vicinity of the Rock Spring, about three miles from the court house. It will then wind to the south, around the high ground on the left until it strikes the old Manchester road, about 300 yards beyond where the new Manchester road diverges from the old one. It will cross the old road at this point, and will run for some distance south of the new road; it will then cross the new road and run for some distance north of it. A short distance east of Sutton's (which is six miles from the city) it will again cross the new road to the south, and will run thence in a south west direction to Daugherty's Ferry on the Maramec, about 20 miles from the city, and two or three miles south of Manchester.

It will run thence up the valley of the Maramec, on the north side of the river, for a considerable distance. At the terminus of the road on 14th street, we learn a depot is to be established for the present, until it shall be decided at some future time, whether it shall come further into the city and at what point."

MISSISSIPPI AND ATLANTIC RAILROAD.

We learn through the public prints that the Circuit Court of Fayette county, Illinois, has decided on a writ of *quo warranto* that the Mississippi and Atlantic Railroad Company has a legal corporate existence, possessing power to carry out the objects contemplated by the corporators in their articles of association.

Every intelligent citizen of Missouri is aware of the importance of this great enterprise; and to the citizens of St. Louis we may be permitted to remark that this work is essentially necessary to sustain the relative commercial advantages which our city now enjoys over other points in the Mississippi valley. What steps will our citizens take to promote the prosecution and early completion of this great work? The time for action has arrived.

LOUISVILLE AND NASHVILLE RAILROAD.

The Board of Aldermen of the city of Louisville have passed an ordinance for subscribing $1,000,000 to aid in the prosecution of this great enterprise: $500,000 to be paid by taxation, and the bonds of the city having thirty years to run, to be given for the balance.

DAGUERREOTYPING.

BY J. H. FITZGIBBON, OF ST. LOUIS, MO.

PROUD indeed must that man be, who, while yet an inhabitant of earth, finds his fame encircling the habitable globe. With what exquisite feelings of pleasure must be the consciousness that the civilized world are now practicing that beautiful art of which he was the happy discoverer, and to know that every time the sun rises the name of DAGUERRE is written

"With a pencil of light"

on countless myriads of tablets in both hemispheres. And, proud may we be who find the enchanter's wand placed within our own grasp, that we too, can command the sun to stand still, and find him obeying our slightest wish, ministering to our fondest loves, and holiest affections, with an alacrity almost beyond the power of comprehension.

Onward as has been the march of this wonderful art,—if we may give such a term to the skilful management of science,—since its first discovery by the great Frenchman and more especially since its introduction to this progressive country, until we may now say it is perfect,* where each operator tries to surpass his brother in producing the finest effect on the polished surface of the silver plate, yet there are many,—it is to be regretted,—who seem to care but little what kind of a picture they produce, so long as they gratify their mercenary desire to accumulate the almighty dollar. That such *professors* of the art exist at all is more owing to the fault of the community in which they live, than any other cause. Most persons like to have *cheap* pictures (not likenesses) and when it is too late, they find to their cost, they have paid too dear for them, for one half of those so taken have to be taken over again by more competent and skilful operators. Few persons in the present day are aware how their resemblances are transferred to the surface of the metallic plate. And few, very few, of the travelling operators are sufficiently educated in the science of their art to explain the *why* and the *wherefore* of the appearance of the picture, or even the nature or effect of the chemical agents they employ. The cause of all this ignorance on such subjects arises from the fact that many young men suddenly captivated with a love for the Fine Arts, take it into their heads that they are destined to make a figure, *or figures* in the world, consequently their genius must no longer be hidden under a bushel, but expand its

* Mr. L. L. Hill of the State of New York, has announced to the world that he has discovered a method of taking pictures in natural colors, with all the perfection of nature herself.

wings in a higher intellectual atmospheric region. Or, what is still more likely, they are lured into this pursuit by a prospect of an *easy* and rapid accumulation of money. Instantly they repair to some cheap Daguerrean establishment or perhaps apply to an itinerant *professor*, and for *ten*, *twenty*, or *thirty dollars* are regularly manufactured in the short space of from three to six days, into full-bred professors of the photographic art. Is it then to be wondered at that we find so many awful, ghost-like looking shadows poured out upon the world by a host of ignorant pretenders? Not at all!

If a person wishes to become acquainted with the Daguerrean art, instead of going to a mere tyro, he ought to place himself under the tuition of an operator of established reputation, one who is permanently located in some city and well known to his neighbors as a man of skill and experience in his profession. Such a man must be well paid for the knowledge he imparts, and the pupil ought to spend at least *three months* with him, if he is desirous to become familiar with the whole process of Daguerreotyping in all its present perfection.

Some of the pictures now to be found in the galleries of the large cities, are such beautiful gems of art that our wonder is excited by the production of so much excellence, and we ask ourselves how is it possible to find fault with things so true to nature. And it is to be hoped that when the Hillotype is brought into full operation there will be still less cause to complain.*

Although the writer has had many years of practical experience in Daguerreotyping, he finds every day something new presenting itself before him, and if it is not in one branch of the business, it is in another that we have a chance of learning, and improving the knowledge already acquired. Yet it is as simple as it is beautiful. *Nature, copying nature by nature's hand*, is so wonderful in its simplicity, that through that very simplicity it becomes difficult of comprehension to some operators, for they will so veil and mystify it to those who know nothing of the operations of science, as to make them believe that they produce pictures by the powers of *parafarageraramus*, as McAllister does his tricks of legerdemain.

As this interesting art is not generally known in the great West, it may not be uninteresting to the readers of the Western Journal to hear a few remarks upon the subject and of the materials through whose agency the Daguerreotypes are produced.

As it is an operation, the success or failure of which, in a great measure, depends upon the atmospheric changes, and the nature and qualities of the chemical agents employed, many difficulties

* Mr. Hill informs the writer by letter on the subject of his inventions, that he expects to be ready in about two months to announce to those interested, the whole process. He says, the process is more easy, more certain, and the picture so taken, less liable to fade than the Daguerreotypes, the time shorter, and that all articles now in use, except the *mercury bath* and a few new chemicals, will still be retained.

obtrude themselves which render this art one of great interest to those who really take pleasure in its pursuit. Yet there are some who have been in the business for years, who profess to have attained perfection in its theory and practice, and to whom, as they fondly believe, no further instruction can be imparted,—most signally fail for want of a right understanding of the business in which, perhaps, they have already made money.

The simple process of taking the Daguerreotypes may be explained in the following manner:

In the first place it is of the utmost importance to have the plates, designed for the reception of the impressions, as clean as possible, for herein lies the great secret of success,—and nineteen out of twenty of the operators of the present day don't half clean their plates. I have known operators to spend an hour in cleaning one plate and in the end it would be less fit for use then when they began, and again, in five minutes others will prepare their plates in the most perfect manner. The mind as well as the hand must be busy in the operation. The *buffing* is also a very important part and should be attended to with the utmost care. Great care should be taken to protect the buffs as also the *rouge* or polish from the effects of dampness or moisture. Galvanizing very materially helps in the process of plate cleaning and adds considerably to the sensitive qualities of the metallic surface and renders it more capable of receiving a good, effective impression. Indeed it is absolutely necessary to have the best of *tripoli*, *rotten stone*, or any other substance which is used, in order to insure a perfectly clean plate.

In the second, it is very essential to the attainment of good pictures that all things used in the operation should be of the best quality, otherwise you can have no dependence on your manipulations. A bad camera will produce a dull and shapeless, indistinct shadow of a shade which might conscientiously be worshiped for the want of resemblance to anything human or divine. Voightlander and Sons of Vienna have attained the greatest celebrity in the daguerrean world for the perfection of their instruments, and well do they deserve their fame, for, their lenses are the finest at present known. C. C. Harrison of New York also manufactures some excellent cameras, his and Voightlander's are used by myself, and I must candidly confess that I find no difference between the pictures taken from one or the other.

Roach and Lewis of New York make some really good instruments, but I would advise no operator to purchase cameras that are unaccompanied by the maker's name, as ten chances to one they are worthless.

Third. The best materials should at all times be made use of, for there is a satisfaction in knowing that when you have produced a fine picture, it is not spoiled by a blemish in the plate. The Scoville manufacturing company of New York, without the shadow

of a doubt, furnish the operator with the finest and best of plates, but a great many persons do not use them because they are a little difficult to clean, and they themselves too lazy to use the necessary quantity of elbow grease; they prefer the French plates as they are easier to clean and moreover are *a little cheaper*, but unfortunately these plates are generally full of small holes. For my own use I prefer the Scoville plates to all others. The case in which the pictures are to be enclosed, should also be of the very best description, more particularly the glass, as this last named article displays the picture to great advantage. Operators, generally, do not put up their work in cases as good as they should be, nor can the manufacturers make them as cheap as they wish them. If the community would make up their minds to refuse such pictures as are put up in common paper cases with thin, bad glass, there would be fewer daguerreotypes destroyed of persons whom their friends respect which, as frequently happens, cannot be replaced, owing to the false working of cheap materials.

One of the best and most extensive case making establishments now known, is that of E. Anthony, of New York. In this manufactory the best cases are all furnished with the finest glass I have met with.

Fourth. It is an important consideration in daguerreotyping to be provided with chemicals of the very best description, as nothing is more annoying to the operator than an inferior order of materials. The purest and the best should at all times be used, for to the excellence of our chemical agents are we indebted for the fine tone of the pictures we take. There are many establishments in this country celebrated for the care with which they put up the chemicals used in the business of daguerreotyping, but I believe none are better or purer than those prepared by Louis Beckers, of Philadelphia. In nine years experience I have not found a bad article from his manufactory.

And lastly; to succeed in this as in any other business, you must pay strict attention to it and never trust to chance but be ready at all times to operate, have every thing in order and when a sitter comes to have his likeness taken, go to work regardless of the weather, be prepared for all kinds of weather, and let me tell you some of the best pictures are frequently taken in wet and cloudy weather. Be very particular how you *pose* your sitters, as the painters term the position they give to the subject; let them always assume the easiest and most natural position possible, for on this, in a great measure, depends the beauty of the daguerreotype, and, never for one moment think of letting a picture leave your gallery that has no *shadow or out-line to the features*, as such productions, although they may please some sitters because copied from themselves, yet they will reflect no credit on either the art or the artist.

In a future paper I will give a description of Daguerreotyping simplified.

ON THE MORAL ADVANTAGES OF ÆSTHETIC MANNERS.

FROM THE GERMAN OF SCHILLER.

The author of the article *On the Danger of Æsthetic Manners*, in the eleventh part of the "*Horen*" of the year 1795, has justly doubted a morality, whose foundation is based merely on the feeling of beauty, and has Taste alone for its security. But an active and pure feeling for beauty has clearly the happiest influence on the moral life, and of this I would here treat.

When I acknowledge the merit due to Taste in contributing to the progress of morality, I must not be misunderstood to mean that the part, which good taste assumes in an action, can make this action a moral one. Morality can have nothing but itself for its foundation. Taste may *favor* the morality of behavior, as I hope to prove in the present essay, but it can never *produce* any thing moral by its own influence.

The case with the inner and moral freedom, is here quite the same as with the outward physical. I act freely in the latter sense only then, when I follow my will independent of every foreign influence. But in order to obtain the possibility of following my own will unconfined, I am yet at last obliged to be sustained by a foundation different from myself, as soon as it is acknowledged, that the latter has power to restrain my will. So also I may at last be obliged to be sustained by a foundation different from my Reason, in order to obtain the possibility of acting with propriety, as soon as this latter is considered as a power, which is able to restrain the freedom of the disposition of my mind. As one may very truly say that a man *obtains* freedom from another, although freedom itself consists therein that one is exempt from direction by others; so, also, one may say with as much propriety, that taste *assists in obtaining* virtue, although virtue clearly produces itself; so that *with it* one needs no foreign assistance.

An action does not therefore cease to be called free, because such an one, who is able to restrain it, sustains himself quietly, as soon as we only know that the acting person therein followed merely his own will, without regard for any foreign. So, also, an inner action does not therefore loose the predicate of moral, because, fortunately, the temptations are wanting which might have made it retrogressive, as soon as we only acknowledge, that the acting person therein follows merely the expression of his reason with the exclusion of foreign motives. The freedom of an outward action rests merely on its *immediate origin* from the *will of the person*, the morality of an inward action merely on the *immediate determination of the will by the law of Reason.*

It may be harder or easier to act as a freeman, according as we

rush upon powers, which work against our freedom and which must be subdued. Accordingly there is a degree of freedom. Our freedom is greater, more manifest at least, when we maintain it in case of extraordinary opposition from hostile powers; but it does not therefore cease, when our will finds no opposition, or when a foreign force interposes and destroys this opposition without our assistance.

This is the case also with morality. It may cost us a greater or less struggle, to obey Reason immediately, according as impulses, which oppose its commands and which we must resist, stir themselves within us. Accordingly there is a degree of morality. Our morality is greater, more conspicuous at least, when we obey Reason immediately, in spite of the strongest impulses to the contrary; but it does not therefore cease, when no incitement to the contrary is discovered, or when some other power, than our own power of will, enfeebles this incitement. Enough, we act with moral propriety, as soon as we only therefore so act, because it is moral, and without first asking ourselves, whether it is also agreeable; even supposing there was really a probability that we would act otherwise, if it occasioned us pain, or deprived us of a pleasure.

To the honor of human nature let it be acknowledged, that no man can sink so low, as to prefer evil merely because it is evil, but that every one, without exception, would prefer the good, because it is good, were it not for the fact that casually it excluded the agreeable, or was attended with the disagreeable. All immorality actually appears to spring out of the collision of the Good with the Agreeable, or what is all the same, the collision of Reason with Passion, and to have *for its source* on the one side the *strength* of the sensual impulses, on the other side the *weakness* of the moral power of will.

Morality may therefore be promoted in two different ways, as it may be hindered in two different ways; either one must strengthen the part of Reason and the power of good will, so that no temptation may prevail over him, or one must break the power of temptation, so that thereby the weaker reason and the weaker good will may be superior to temptation.

Indeed, it might appear as if morality itself gained nothing by the last experiment, because the will, whose quality alone makes an action moral, undergoes thereby no alteration. But that is not necessary, in the assumed case, where no bad will, which should be changed, only a good one, which is weak, is presupposed. And this weak good will, in this way, arrives at an effect which, perhaps, would not happen, if it had been counteracted by stronger impulses. But where a good will is the foundation of an action, there is, in truth, living morality. I do not hesitate to assume the position, that that truly promotes morality, which destroys the opposition of inclination against the Good.

The natural internal adversary of morality is the sensual impulse,

which struggles for satisfaction, as soon as an object is presented before it, and sets itself in opposition to the order of Reason, as soon as Reason commands anything repugnant to its inclination. This sensual impulse is continually busy, endeavoring to interest the will in its favor, which still stands under the moral law and feels bound under the obligation, that it will never contradict the declarations of Reason.

But the sensual impulse knows no moral law and is determined to realize its object through the will, whatever Reason may say. This tendency of our appetitive faculty to command the will immediately, and without the least regard to the higher laws, stands in conflict with our moral destination, and is the strongest adversary, which man has to contend against in his moral action. Persons of unchastened disposition-of-mind, who are deficient at the same time in moral and æsthetic culture, give loose reins immediately to Passion, and they act merely as their senses desire. Persons of moral disposition-of-mind, but who are deficient in æsthetic culture, give the reins immediately to Reason, and it is merely by their glance of duty, that they overcome temptation. In æsthetically refined souls there is still one resort more, which, not unfrequently, makes amends for virtue where it fails, and alleviates it where it exists. This resort is Taste.

Taste demands temperance and propriety, it abominates every thing angular, hard and violent, and inclines towards all those things which join themselves together easily and harmoniously. That we, even in the storm of sensibility, may listen to the voice of Reason, and establish a boundary to the rude sallies of nature, it is necessary to be familiar with the good *ton*, which is nothing else than an æsthetic law for every polished man.

This constraint, by which the polished man subdues the expression of his feeling, obtains for him a degree of dominion over this feeling itself,—gains for him at least a facility to interrupt the merely passive condition of his soul by an act of spontaneity, and to restrain by reflection the rapid transition of feelings into action. But all that, which breaks the blind power of Passion, produces not the least virtue (for this must always be its own work), but it gives an opportunity to the will to turn to virtue. But this victory of Taste over unchastened Passion, is very far from being a moral action, and the freedom which the will here gains by Taste, is very far from being a moral freedom. Taste frees the disposition-of-the-mind from the yoke of instincts, only so far as it leads it into its own fetters, and while it disarms the first and manifest enemy of morality, yet it remains itself not unfrequently as the second, which under the mask of a friend may be thereby only more dangerous. Taste, for example, controls the disposition-of-the-mind even merely by the charm of pleasure—a noble pleasure, it is true, because its source is Reason—but where pleasure determines the will, there is no living morality.

But yet something extraordinary is gained by this intermingling of taste with the exercise of the will. Each and every material inclination and unchastened Passion which often so sternly and violently oppose the practice of Goodness, are by Taste banished from the disposition-of-the-mind, and in their place nobler and gentler inclinations are cultivated, which tend towards order, harmony and perfection, and although they are no virtues themselves, yet they share an object with virtue. When now, therefore, Passion speaks, it must undergo a strict review before the sense of beauty, and when again Reason commands actions of order, harmony and perfection, it then finds not only no opposition but, rather the liveliest consent from the side of inclination. When for example, we run through the different forms, under which morality may be manifested, then might we be able to trace it all back to these two. Either sensuality makes a motion in the disposition-of-the-mind that something shall take place, or be prevented, and thereupon the will disposes of it according to the law of Reason, or the Reason makes the motion, and the will obeys it, without questioning the senses.

The Grecian Princess Anna Komnena relates an incident of an imprisoned rebel, whom her father Alexius, when he was General of his predecessor, had been ordered to escort to Constantinople. On the way, as they traveled together alone, Alexius was overcome with a longing to halt under the shadow of a tree, and to refresh himself there from the heat of the sun. Sleep soon overpowered him. The prisoner, to whom the fear of approaching death allowed no repose, remained awake. While Alexius was lying in deep sleep, the prisoner discovered his sword, which was hanging on the twig of a tree, and was tempted to set himself at liberty by murdering his guard. Anna Komnena intimates that she did not know, what would have happened, if Alexius had not fortunately awaked.

Here, now was a moral acting principle of the first order, where the sensual impulse first was actuated, and only afterwards was Reason recognized as judge. Had that man conquered temptation out of pure regard for justice, then there would be no doubt that he acted morally.

As the late Duke of Brunswick was walking on the banks of the rapid Oder, thinking whether he should abandon himself to the raging stream endangering his life, that thereby an unfortunate man might be saved, who was helpless without him, and as he—I place this case singly on the consciousness of this duty—sprang in the boat, on which no other one would enter, there is also no one who would deny that he acted morally. The Duke's position here was opposite to the former case. Here the representation of duty preceded, and only afterwards the impulse of self-preservation began to contend against the order of Reason. But in both cases the will sustained itself in the same way: it followed Reason immediately, therefore both are moral.

But would these cases still remain moral, if we allow Taste to have any influence on them? Suppose then, the one in the first case, who was tempted to commit a bad action, and omitted it out of regard for justice, had a taste so cultivated, that all shameful and violent actions awakened within him an abhorrence, which nothing could overcome, at the moment when the impulse of preservation would urge towards a shameful action, the merely æsthetic sense would condemn it immediately—it would not even make its appearance before the moral Forum, before conscience, but would be judged finally in the Court of first resort. But the æsthetic sense controls the will merely by feeling, not by laws. Thus that person refused to entertain the agreeable feeling of preserved life, because he could not endure the repugnance he felt against committing a base action. The whole affair is thus already discussed in the forum of Sensibility, and the conduct of this man, as legal as it is, is yet indifferent in a moral sense—it is a beautiful effect of nature.

Suppose, now, the other one, to whom his reason commanded that he should do a certain thing, against which his natural impulse revolted, had also a susceptible sense for beauty, for all those things which are great and perfect, enraptured with enthusiasm, even Sensuality would comply with the claims of Reason, at the moment those claims were suggested, and he would, with the concurrence of his inclination, do that which he must have done in opposition to his inclination, without this tender sensibility for the Beautiful. But would we consider him less perfect on that account? Certainly not: for his action sprang originally out of pure regard for the precept of Reason, and it is no infringement of the moral purity of his deed, that he obeyed the precept of Reason joyfully. He is therefore as accomplished *morally*, whereas *physically* he is *by far* more accomplished: for he is a very judicious subject for virtue.

Taste, therefore, gives to the disposition-of-the-mind a tone appropriate for virtue, because it removes the inclinations which hinder, and awakens such as favor it. Taste cannot derogate from true virtue, though in all cases, where the impulse of nature produces the first incitement, it concludes every instance before its own tribunal, upon which, otherwise. conscience would have been required to pass judgment, and therefore Taste is the cause that among the actions of those who are controlled by it, far more indifferent, than truly moral ones are discovered. For the excellency of mankind rests by no means on the *greater number of single rigorously moral actions*, but on the greater congruity of the whole natural condition with the moral laws, and it redounds not so very much to the recommendation of his people or age, when one, in the same, hears so often of morality, and of individual moral actions; much more might one hope that at the end of culture, if such a thing could be imagined, the subject would be scarce-

ly ever mentioned. Taste may, on the contrary, be *positively useful* to true virtue in all cases, where Reason produces the first incitement, and is in danger of being overpowered by the stronger force of the impulse-of-nature. In these cases, for example, it attunes our Sensuality in accordance with duty, and therefore also makes the least amount of the moral power of will capable of the practice of virtue. Now, while Taste, as such, is in no case injurious to true morality, but in many cases is manifestly useful, the fact, that it is in the highest degree conducive to the *legality* of our conduct, must also be considered of great weight. Suppose now, that fine culture contributes nothing at all to the promotion of morality,—to make us better-minded,—it enables us at least, even without a truly moral disposition, to act in such a manner, as that in which a person of truly moral disposition would be induced to act. Now, nothing depends upon our actions before a moral forum, as far as they are an expression of our dispositions; but before the physical forum, and in the plan of nature, the case is just the contrary, nothing depends upon our dispositions, as far as they prompt actions, by which the aim of nature is promoted. But now both orders-of-the-world, the physical wherein powers, and the moral wherein laws govern, are so accurately calculated for one another, and so intimately interwoven with one another, that actions, which are morally judicious in their form, inclose at the same time in their substance a physically judicious aim; and as the whole fabric-of-nature only therefore appears to be existing, so as to render possible the highest of all aims,—that which is the Good, so the Good again acts as a means to sustain the fabric of nature upright. The order of nature is thus made dependent on the morality of our dispositions, and we cannot act in violation of the moral world, without at the same time producing a disturbance in the physical.

When now it is never expected of human nature, so long as it remains human nature, that it will act uniformly and constantly as pure Reason, without interruption or backsliding, and never violate the moral order; when we, with all our convictions as well of the necessity as the possibility of pure virtue, must confess, how very accidental is its real practice, and how little we dare build on the invincibility of our better principles, when we are reminded by this consciousness of our uncertainty, that the fabric-of-nature suffers by every one of our moral *faux pas*; when we call all these things to remembrance, then would it be the most presumptuous audacity to allow the welfare of the world to depend on this accident of our virtue. Moreover an obligation here rests upon us, to fulfil at least the physical order-of-the-world satisfactorily by the tenor of our actions, even when we might be unable to fulfil the moral order by the form of our actions, at least, as perfect instruments, to discharge the aim of nature, which we, as imperfect persons, owe to Reason, so that we may not be confounded before both tribunals

at the same time. If we, therefore, because it is without moral worth, would establish no order in regard to the legality of our conduct, then, by this means, the order-of-the-world would be disarranged, and before we would be ready with our principles, all the bonds of society would be snapt asunder. But the more accidental our morality is, so much the more necessary is it to take precautions for the legality of our conduct, and a frivolous or proud neglect of the legality may be imputed to us as a moral blemish. Even as the madman who perceiving his approaching paroxism, removes every knife, and freely offers himself to be bound, so that he may not be answerable in his sound condition for the crime he may commit when his mind is disordered ; so also are we obligated to bind ourselves by Religion and by æsthetic laws, so that our passions may not violate the physical order during the period of their dominion.

I have here placed Religion and Taste in one class, not undesignedly, because both have merit together, according to the effect, if not also according to the inner worth, to serve as a *succedaneum* for true virtue, and to secure legality there, where one cannot hope morality. Although every one in the rank of Spirits would indisputably adorn a higher position, who neither felt the necessity of the charm of beauty, or of the prospect of immortality to conduct himself in all cases in accordance with Reason, yet even the known bounds of humanity require the most rigid ethical writer to allow something in practice, on the austerity of his system, though he would make no allowance for the same in theory, and they also require that the welfare of mankind, which would be badly guarded by our accidental virtue, should be more firmly protected by both the strong anchors of Religion and of Taste.

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PUBLISHED MONTHLY.

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VOL. VI. AUGUST, 1851. NO. 5.

THE WESTERN JOURNAL,

OF

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INTERNAL IMPROVEMENT, COMMERCE,

AND

GENERAL LITERATURE.

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ST. LOUIS:
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1851.

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THE

WESTERN JOURNAL,

M. TARVER AND T. F. RISK, Editors and Proprietors.

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J. B. McCormick, Esq., Wooderford, Versailles county, Ky.
F. Schuster, St. Louis, Mo.

THE

WESTERN JOURNAL.

VOL. VI. August, 1851. No. V.

Article I.

THE TIMES.

The times, whether productive of good or of evil, have always been a fruitful source of disquietude to a large portion of the human family; and the great variety of aspects in which they are viewed by different individuals, if correctly delineated, would make an interesting and instructive chapter in the science of social economy. When used in its largest sense this phrase denotes the political, religious, and pecuniary condition of the civilized world; but it is subject to innumerable modifications and restrictions.

The times of the merchant relate to the state of trade and the financial condition of the commercial world: the price of produce marks the times of the farmer: and the moral condition of the age constitutes the times of the teachers of ethics and religion. Politicians, and, indeed, individuals of all professions and callings habitually regard that state of things which affects their own respective interests, as constituting the times. And even in the world of amusement and folly there are times and seasons which are regarded by its constituents as epochs not less important than the building of Rome or the American revolution.

So forcibly does the existing state of things impress itself upon the minds of men, controlling their thoughts, actions, and ends, that every new phenomenon that indicates change in the social condition, attracts attention, and is, indeed, worthy of serious consideration. But owing to the infinite variety of mediums through which these phenomena are viewed, it rarely happens that mankind agree in opinion respecting their import; and hence every innovation, whether calculated to produce good or evil, has its advocates and opposers. In politics, morals, and religion, any new doctrine, no matter how unjust, absurd, or profane, finds zealous supporters: while the wisest institutions ever established by man, and even the religion revealed by the Almighty, are opposed:—the wisdom and

justice which dictated the former, denied; and the benevolence and mercy which characterize the latter, questioned and contemned.

Such are some of the startling phenomena of the times in which we write: and similar exhibitions of madness and folly must continue to disturb the repose of mankind and jeopardize the progress of civilization until a more comprehensive philosophy shall have been inculcated and diffused throughout the masses composing the human family. We dare not affirm, as philosophers or christians, that those who exhibit such revolting traits of depravity, were deficient originally in mental and moral endowments, or that many of them are not actuated by a conscientious belief that they are serving the best interests of humanity. They are monomaniacs who, having seized upon an abstract principle, vainly resolve to carry it out, though all institutions, human and divine, should be obliterated from the earth, the fountains of human sympathy dried up, and men become demons.

But, notwithstanding the signs in the North and the South betoken evil, and would seem to menace the Union of these States with dissolution, yet, nevertheless, we are firm believers in the strength and stability of our present form of government. The principles of Christianity and republicanism have taken root so deep and firmly in the hearts of our people that to doubt of the permanency of our political institutions would call in question the efficacy of the one and the wisdom of the other. We will not, we cannot believe that any considerable part of the people of this country will follow the lead of madmen who openly denounce and contemn all laws, human and divine, which contravene the accomplishment of their insane purposes.

Their treasonable demonstrations against the government, their disregard for the precepts of religion and contempt for the social observances which characterize civilized men, are the fruits of a false philanthropy, which exhausts itself in vain efforts to enlighten the minds and ameliorate the condition of those dwelling on the remotest parts of the earth; while they have neither pity for the ignorance, nor charity for the sufferings of their immediate neighbors. These open demonstrations may be regarded as evidence that their power to work mischief is drawing to an end; for their treasonable purposes being avowed, their political influence must cease as a natural consequence.

But confidence in the strength and stability of our institutions should not be indulged so far as to relax our vigilence. Avowed opposition and overt acts against the established order of things, though calculated to disturb individual and social quiet, are little to be feared. The dangers to be deprecated and guarded against, more than all others, lie concealed under political, social, and religious dogmas—abstract truths perhaps—which few are prepared to deny; but when adopted and acted upon as creeds admitting of no qualification, come in direct conflict with social order, reason,

and religion. The individual professing but one truth is a madman, but not without method: he knows that he can make no impression upon men of more comprehensive minds, and is too good an economist of his powers to waste their force in fruitless exertions. Hence he seeks out the ignorant, the weak, and the narrow-minded, whose capacities are merely sufficient to comprehend his single idea without perceiving the consequences of being governed wholly by its dictates. With these, when indoctrinated, he commences agitation, and attacks the established order of society through the instrumentality of unprincipled demagogues who readily espouse any cause that promises to support their own baseless pretensions.

It is remarkable that an age so productive of discoveries calculated to ameliorate the social condition and expand and liberalize the human mind, should be fruitful in monomaniacs—men of one idea—resolved upon carrying out impracticable abstractions, regardless alike of the good or evil that may follow.

It would seem that the truly valuable discoveries and improvements of the times, have brought into existence a tribe of pretenders who, possessing neither the capacity nor desire to benefit mankind, aspire simply to the attainment of notoriety by associating their names with deeds of infamy. War against the existing institutions and social observances of the best regulated governments and communities, may be regarded as their vocation. Their chief object is to pull down and disperse the materials of which the social fabric is composed, without even proposing to erect a better in its place.

These pseudo philanthropists manifest a profound foresight in their plans of operation, often breaking ground so far from their point of attack, as to mislead and deceive the most vigilent. Having resolved upon the consummation of a certain object, they open the way to its attainment by suggesting some change or innovation, which in itself appears innocent enough, but when adopted and acted upon, is productive of results which widely and deeply affect the social condition. The times are fruitful of instances in point, but we shall notice but one at present, leaving our readers to trace out others at their leisure.

It is a humiliating fact that, in most cases where men have proposed to change the established order of society by abolishing those social observances which tend to elevate and refine humanity, beings in the form of women have been found amongst their most zealous coadjutors. Our readers have doubtless been grieved and sufficiently disgusted by the accounts of female agitators. Their labors in the cause of abolition, "the rights of women" and other disorganizing projects, constitute a chapter in the history of the times which we would fain expunge from its pages; but as we can-

not reverse the past, we may at least protest against the follies and vices of the present.

We regard the change now going on in female costume as emanating from the doctrines of such worthies as Fanny Wright, Abby Kelly, and their associates of both sexes, and of all complexions. We are not of those who object to frequent changes in the fashions of female dress, nor are we disposed to critisise any form which it may assume within certain limits. Occasional changes, provided they are within proper bounds, present an agreeable and pleasing variety, and, are calculated to improve a taste for the beautiful. But there are limits that cannot be transgressed without violating the principles of an enlightened and refined civilization. An occasional exhibition of woman dressed in the costume of man, attracts attention by reason of its novelty, and for the moment may produce a pleasing effect; but one who should attempt to win the affections and respect of a man of refinement by assuming his costume, would soon discover that she had abdicated that indefinable and mysterious power, by which alone she is enabled to control the hearts and actions of men.

The imagination of every man whose nature has not been degraded by vice, has fashioned woman according

"To its own desiring fantasy,"

and endowed her with qualities far more lovely and excellent than those bestowed upon her by nature. And hence, it is the ideal, perfect in all its proportions of mind and matter, exempt from every frailty, that rules in the heart of man. Every exhibition of the imperfections and frailties of the real, tends to dispel the charms with which the ideal has been invested by the imagination. The wisdom and virtue of woman consists chiefly in personating, as nearly as she can, the ideal being enthroned in man's heart; and in those points wherein she fails, as fail she must in some, let her preserve the delusion by modestly concealing her defects.

There is a philosophy involved in the forms of costume which is worthy of being studied by the political economist, as well as by the artist and divine, under whose directions it has chiefly been regulated in civilized nations. The savage treats woman as a slave or beast of burthen. In his case the exhibitions of nature are too palpable to admit of the existence of the ideal. Dissimilarity of costume opens the field of imagination; and the slave is not only enfranchised but installed as a divinity—inspiring man with sentiments of virtue, and inciting him to the performance of noble actions. It must be regarded as a rash and dangerous experiment for woman to disrobe herself of the mantle which has so long shielded her against the aggressions of man's ruder nature, and thus unarmed, enter into rivalship with him from whom her social strength is principally derived. In such a contest she must be vanquished—but cannot fall alone; for, though degraded from her

high estate, where she presided over the destiny of man, and bereft of the charms which gave form and tone to all his visions of bliss, yet if she fall again into servile bondage she will drag the vanquishers with her back to a state of barbarism not less degraded and wretched than her own.

But many of our discreet and sober citizens regard the introduction of the new costume as impracticable: neither can we believe that it will be generally adopted; but, in our opinion, it requires a public expression of decided disapproval to check its progress. No other innovation, of equal importance, ever proposed in this country, has met with such uniform countenance and commendation from the public press: the entire corps editorial, with one exception perhaps out of twenty, seem to have been surprised and taken captive by what they denominate the "Bloomer Costume." Surely so many grave and intelligent gentlemen could not have been influenced merely by a desire to see their wives and daughters dressed out in pantaloons. We can imagine a variety of motives by which some of the younger brothers of the corps might be induced to advocate this innovation; but even they, we believe, would not commend it to their sisters and mothers.

But whatever may have been the motives of the conductors of the press in supporting this movement on the part of the women, we must be allowed to say that in our opinion they have manifested not only a want of taste and refined sentiment, but have shown themselves to be either ignorant or disregardful of the more refined and important principles of social philosophy.

Upon this subject we cannot believe that the press is the true exponent of public sentiment; and we trust that our countrywomen will not be lead by its opinion into follies which they may have cause to regret, until both sides of the question shall have undergone more serious consideration.

We have observed that the new costume is more especially recommended to those employed in factories and other vocations requiring much exercise. This we also regard as highly objectionable. Let those whose condition compels them to labor, beware of adopting a costume differing materially in form from that worn by the more wealthy classes. Such a custom would tend to mark more distinctly the lines between the different classes of society, and limit the social intercourse of each within their respective bounds. It was doubtless by such means that *castes* were established in China and other countries where that form of society now exists. The institution of *castes*, whether established by law or resulting from custom, would destroy the spirit of our republican institutions and put an end to our progress in civilization.

In concluding this hasty sketch of the times, it may be proper to remark that there seems to be a strong tendency in the public mind to regard any change as an improvement. This places the mere pretender, destitute of genius, philanthropy, and even of

honesty, upon an equal footing with the benefactors of the age, whilst it endangers the safety of our institutions and tends to degrade the moral sense of the people.

To watch the ever changing aspects of the times and guard the community against sudden and ill advised changes and innovations, whether in politics, religion, or morals, is amongst the first and highest duties of the public press; and if those who direct that mighty engine discharge this duty with wisdom and fidelity, we may confidently trust in the advent of better times than has fallen to the lot of man since his expulsion from the garden of Eden.

ARTICLE II.

AMERICAN HEMP.

[For the Western Journal.]

SIR,

That the productions of the United States, whether of the Animal, Mineral or Vegetable kingdom, should, as far as possible, be brought into requisition by the citizens thereof generally, in their daily and common uses, and by the government thereof, particularly, inasmuch as is required for the wants of its Army and Navy, Docks and Arsenals, and the uses of its Navy-yards and Ropewalks, is so plain a proposition that to take it for granted would seem as anything but presumption, and to offer arguments for its support an act of barefaced supererogation. For all admit the fact that the greater the consumption of the domestic article (where its use is adequate to the want) instead of the foreign production, the less we have to pay to foreigners—the more abundant is the circulating medium among ourselves, and the less the necessity for the shipment of such medium from our own to foreign shores—the less reason for depriving ourselves of coin for the enrichment of others.

In view of these considerations it has been thought proper by our wisest statesmen to lay a protective duty upon such articles as are of the growth or manufacture of a foreign country in common with our own; that the citizens of the United States may reap the benefit of the production or manufacture of such articles, rather than that such benefit should accrue to foreigners; or that the specie should be paid to others for doing what we could do ourselves.

These preliminary remarks result from a knowledge of the two following facts: the first of which is contained in the laws of the United States and there spread at length; the second—though not hitherto so fully published or generally known—acquired by me,

during a journey taken during the months of May and June last, through several of the Northern and Eastern States.

1st. *Hemp* is admitted into the United States upon the payment of a duty of 25 per cent. but *Hempen Yarns* upon the payment of a duty of 20 per cent.

2d. *Hemp*—American, dew-rotted Hemp—has never been manufactured into cordage for the use of *its own Navy*, nor has a single gang of rigging, for any United States vessel, ever been made, of such hemp, *at any United States rope-walk.*

The cause of the fact contained in the first proposition is, by me, unfathomable. That a nation should tax its own people for the benefit of another—that its own producers, its own manufacturers—the tillers of its own soil should be forced to take the bread from their own mouths for the sustenance of foreigners and that the Russians should be paid a bonus of 5 per cent. (the discount to them for manufacturing their hemp before they send it to us) as an encouragement for them to send us their yarns, is certainly an anomaly in national policy—but such is the fact—such is the law. And must we always submit? Will you not, Sir, in your next annual message recommend justice to the hemp-grower and to the cordwainer? I will hope so.

But regarding the second proposition such inconsistency, *in law*, does not exist, and you have the full power as "Commander in chief of the Army and Navy of the United States" to take such order thereon as may, to you, and in your discretion and judgment, seem fit and proper.

The only Rope-walk belonging to the United States or attached to a navy-yard thereof, (not mentioning that upon the Mississippi, at Memphis, as yet incomplete,) now in complete operation, is at the Charlestown navy-yard. This walk I visited, in company with Capt. Pope, last May, who, with that politeness and urbanity, common to the profession, and so generally accorded to strangers, rendered me every facility for making myself acquainted with the practical minutiæ of the operations of that extensive and systematic work, and to the scientific and attentive superintendant of the rope-walk, Mr. *Calan*, am I indebted for much valuable information regarding the conduct of that concern, so important for the efficiency of our U. S. marine.

In this interview Mr. C. informed me that, since his action as superintendent of the rope-walk, no cordage had been manufactured, for the use of the Navy, from *American dew-rotted Hemp* —that it was considered, by the government and naval officers, generally, as unfit for the use of sea-going vessels—that it would not take or absorb tar as readily as Russian hempen yarns, and that, although it might not be entirely unsusceptible of taking tar, still that it would not retain the little absorbed by it to a sufficient extent for practical purposes. I did not understand Mr. Calan to say that he knew this *experimentally*, but that it was so generally

considered that he had never been ordered to spin a yarn of this kind of Hemp.

On the other hand I was informed by Messrs. Small, Day & Co., of Boston, whose extensive rope-walk is situated in Roxbury, that almost all their manufacture was of American dew-rotted hemp—that they have *practically tested* the matter, and that American dew-rotted hemp, of good quality, is not only as susceptible of absorbing and retaining tar, but that it is a stronger article than the Russian. I personally inspected their cordage, of various sizes, and should pronounce it inferior, in appearance, to none that I have ever seen, either in U. S. or private walks.

The Rope-walk of Messrs. Robbins & Co. (Messrs. Phineas Sprague & Co., Boston, agents, and large owners in same,) at Plymouth, I also went to see, and was much gratified. In fact the assiduous attention shown me by Messrs. Evans, of the Plymouth, and Noyes, of the Roxbury works, in their endeavours to impart valuable information regarding the manufacture of American dew-rotted Hemp demands my hearty thanks.

The Plymouth works are carried on by steam at one end and by water power at the other end of the walk. Mr. Noyes informed me that the yarns imported from Russia, in that shape, were *twisted too hard* to take tar well, *without un-laying*.

In these several rope-walks is manufactured yearly from ten to fourteen hundred tons of American dew-rotted Hemp (as I understood) into lines and cordage of various sizes—tarred and untarred—spun yarn, marline, sea lead-lines, boltrope, stays, hawsers, &c., &c.

And these *Russian yarns* (that command a bonus of five per cent.) are too hard laid to take tar well—instead of the *American Hemp.* The tables seem turned. At least such is the result of my inquiries, both as regards the taking and retaining of tar, as well as regards the comparative strength of fibre of 1st quality Russian and American dew-rotted Hemp.

It would seem probable, in view of these facts, that all that is wanted to insure as general a use of the Hemp and Cordage of America by the United States marine as by the commercial service, is to have the subject fairly tested by the government of the United States.

Will you, then, Sir, in conclusion, permit me—a Missouri farmer—a hemp-grower—one who (although over fifty years of age) never yet held and never expects to hold an office, either of honor, profit or trust, under the U. S. government, or any other,—will you permit such an one to propose for your consideration one of the following experiments—and should you think proper, to direct the trial of one of them, that *Americans* may, at least, have as fair a trial of their products (*for once*) as the *Russians* have caroled in for years—yes Sir—since the independence of these United States—that American Hemp—*dew-rotted hemp* may

be spun in the rope-walks and used in the navy of the United States? Either of these experiments will test the matter, provided the manufacturer will throw aside any prejudices that he may have hitherto acquired (from habit) in favor of the Russian and averse to the American article—prejudices, which, in being now generally acted upon, regarding other articles of common use, are conducing to the banishment of the precious metals from our own to other shores—for the gold of California stays with us but barely long enough to pass through the *mint*—to those who welcome their reception with an alacrity, surpassed only by the *tenacity of their clutch.*

The last or second proposition would, perhaps, be a fairer test than the first, for, both the Russian and American cordage in this case, being exposed upon the same vessel, at the same time, and to the same weather and atmosphere of any and all climates, must have an equal and fair chance; and if there is any superiority of the one kind of rigging or finding over another, such superiority must be apparent.

1st. Let two sea-going vessels of war, of the U. S. Navy be rigged and found, entirely, the one with Russian and the other with American cordage. Or,

2d. Let one such vessel (as near as may be) have one-half her rigging and finding manufactured of American and the other half of Russian hemp. Say her starboard rigging of the one kind and her larboard rigging of the other.

With the full assurance and unqualified declaration that all I have in view in this letter is the glory and renown of these United States, and the prosperity and happiness of the citizens thereof, and in the fond hope that this subject may be awakened for examination and that a full, free and fair investigation may result, I am, Sir,

Respectfully,
Your fellow-citizen,
J. T. Cleerland.

To Hon. Millard Fillmore,
President of the United States,
Washington City, D. C.
U. S. A.

Hazel Ridge, Glasgow, Mo., July 22, 1851.

Article III.

THE PRESENT CONDITION OF GREAT BRITAIN.

[Continued from page 252.]

There is an unavoidable tendency, in all old and wealthy states, for riches to concentrate in the highest ranks, and numbers to become excessive in the lowest. This arises from the different set of principles which, at the opposite ends of the chain of society, regulate human conduct in the direction of life. Prudence, and the desire of elevation, are predominant at the one extremity; recklessness, and the thirst for gratification, at the other. Life is spent in the one in striving to gain, and endeavoring to rise; in the other, in seeking indulgence, and struggling with its consequences. Marriage is contracted in the former, generally speaking, from prudential or ambitious motives; in the latter, from the influence of passion, or the necessity of a home. In the former, fortune marries fortune, or rank is allied to rank; in the latter, poverty is linked to poverty, and destitution engenders destitution. These opposite set of principles come, in the progress of time, to exercise a great and decisive influence on the comparative numbers and circumstances of the affluent and the destitute classes. The former can rarely, if ever, maintain their own numbers; the latter are constantly increasing in numbers, with scarcely any other limit on their multiplication but the experienced impossibility of rearing a family. Fortunes run into fortunes by intermarriage, the effects of continued saving, and the dying out of the direct line of descendants among the rich. Poverty is allied to poverty by the recklessness invariably produced by destitution among the poor. Hence the rich, in an old an wealthy community, have a tendency to get richer, and the poor poorer; and the increase of wealth only increases this tendency, and renders it more decided with every addition made to the national fortunes. This tendency is altogether irrespective of primogeniture, entails, or any other device to retain property in a particular class of society. It exists as strongly in the mercantile class, whose fortunes are for the most part equally divided, as in the landed, where the estate descends in general to the eldest son; and was as conspicuous in former days in Imperial Rome, when primogeniture was unknown, and is now complained of as as great a grievance in Republican France, where the portions of children are fixed by law, as it is in Great Britain, where the feudal institutions still prevail among those connected with real estates.

In the next place, this tendency in old and opulent communities has been much enhanced, in the case of Great Britain, by the extraordinary combination of circumstances—some natural, some

political—which have, in a very great degree, augmented its manufacturing and commercial industry. It would appear to be a general law of nature, in the application of which the progress of society makes no or very little change—that machinery and the division of labor can add scarcely any thing to the powers of human industry in the cultivation of the soil—but that they can work prodigies in the manufactories or trades which minister to human luxury or enjoyment. The proof of this is decisive. England, grey in years, and overloaded with debt, can undersell the inhabitants of Hindostan in cotton manufactures, formed in Manchester out of cotton grown on the banks of the Ganges or the Mississippi; but she is undersold in grain, and to a ruinous extent, by the Polish or American cultivators, with grain raised on the Vistula or the Ohio. It is the steam-engine and the division of labor which have worked this prodigy. They enable a girl or a child, with the aid of machinery, to do the work of a hundred men. They substitute the inanimate spindle for human hands. But there is no steam-engine in agriculture. The spade and the hoe are its spindles, and they must be worked by human hands. Garden cultivation, exclusively done by man, is the perfection of husbandry. By a lasting law of nature, the first and best employment of man is reserved, and for ever reserved, for the human race. Thus it could not be avoided that in Great Britain, so advantageously situated for foreign commerce, possessing the elements of great naval strength in its forests, and the materials in the bowels of the earth from which manufacturing greatness was to arise, should come, in process of time, to find its manufacturing bear an extraordinary and scarce paralleled proportion to its agricultural population.

Consequent on this was another circumstance, scarcely less important in its effects than the former, which materially enhanced the tendency to excess of numbers in the manufacturing portions of the community. This was the encouragement given to the employment of *women and children in preference to men* in most manufacturing establishments—partly from the greater cheapness of their labor, partly from their being better adapted than the latter for many of the operations connected with machines, and partly from their being more manageable, and less addicted to strikes and other violent insurrections, for the purpose of forcing up wages. Great is the effect of this tendency, which daily becomes more marked as prices decline, competition increases, and political associations among workmen become more frequent and formidable by the general popularising of institutions. The steam-engine thus is generally found to be the sole moving power in factories; spindles and spinning-jennies the hands by which their work is performed; women and children the attendants on their labor. There is no doubt that this precocious forcing of youth, and general employment of young women in factories, is often a great resource to families in indigent circumstances, and enables the children and

young women of the poor to bring in, early in life, as much as enables their parents, without privation, often to live in idleness. But what effect *must* it have upon the principle of population, and the vital point for the welfare of the working classes—the proportion between the demand for and the supply of labor? When young children of either sex are sure, in ordinary circumstances, of finding employment in factories, what an extraordinary impulse is given to population around them, under circumstances when the lasting demand for labor in society cannot find them employment! The boys and girls find employment in the factories for six or eight years; so far all is well: but what comes of these boys and girls when they become men and women, fathers and mothers of children, legitimate and illegitimate, and their place in the factories is filled by a new race of infants and girls, destined in a few years more to be supplanted in their turn, by a similar inroad of juvenile and precocious labor? It is evident that this is an important and alarming feature in manufacturing communities; and. where they have existed long, and are widely extended, it has a tendency to induce, after a time, an alarming disproportion between the demand for, and the supply of *full-grown labor* over the entire community. And to this we are in a great degree to ascribe the singular fact, so well and painfully known to all persons practically acquainted with such localities, that while manufacturing towns are the places where the greatest market exists for juvenile or infant labor—to obtain which the poor flock from all quarters with ceaseless alacrity—they are at the same time the places where destitution in general prevails to the greatest and most distressing extent, and it is most difficult for full-grown men and women to obtain permanent situations or wages, on which they can maintain themselves in comfort. Their only resource, often, is to trust, in their turn, to the employment of their children for the wages necessary to support the family. Juvenile labor becomes profitable—a family is not felt as a burden, but rather as an advantage *at first;* and a forced and unnatural impulse is given to population by the very circumstances, in the community, which are abridging the means of desirable subsistence to the persons brought into existence.

Lastly, the close proximity of Ireland, and the improvident habits and rapid increase of its inhabitants, has for above half a century had a most important effect in augmenting, in a degree altogether disproportioned to the extension in the demand for labor, the numbers of the working classes in the community in Great Britain. Without stopping to inquire into the causes of the calamity, it may be sufficient to refer to the fact, unhappily too well and generally known to require any illustration, that the numbers of laborers of the very humblest class in Ireland have been long excessive; and that any accidental failure in the usual means of subsistence never fails to impel multitudes in quest of work or chari-

ty, upon the more industrious and consequently opulent realm of Britain. Great as has been the emigration, varying from 200,000 to 250,000 a-year from Ireland, during the last two years to Transatlantic regions, it has certainly been equalled, if not exceeded, by the simultaneous influx of Irish hordes into the western provinces of Britain. It is well known* that, during the whole of 1848, the inundation into Glasgow was at the rate of of above 1000 a-week on an average; and into Liverpool generally above double the number. The census now in course of preparation will furnish many most valuable returns on this subject, and prove to what extent England has suffered by the competition of Irish labor. In the mean time it seems sufficient to refer to this well-known social evil, as one of the causes which has powerfully contributed to increase the competition among the working-classes, and enhance the disproportion between the demand for, and the supply of, labor, which with few and brief exceptions has been felt as so distressing in Great Britain for the last thirty years.

Powerful as these causes of evil undoubtedly were, they were not beyond the reach of remedy by human means—nay, circumstances simultaneously existed which, if duly taken advantage of, might have converted them into a source of blessings. They had enormously augmented the powers of productive industry in the British Empire; and in the wealth, dominion, and influence thereby acquired, the means had been opened up of giving full employment to the multitudes displaced by its boundless machinery and extended manufacturing skill. Great Britain and Ireland enjoyed one immense advantage—their territory was not merely capable of yielding food for the whole present inhabitants, numerous as they were, but for double or triple the number. The proof of this is decisive. Although the two islands had added above a half to their numbers between 1790 and 1835, the importation of foreign grain had been continually diminishing; and in the five years ending with 1835, they had come to be on an average only 398,000 quarters of grain and flour in a year—being not *a hundredth* part of the whole subsistence of the people. Further, agriculture in Great Britain, from the great attention paid to it, and the extended capital and skill employed in its prosecution, had come to be more and more worked by manual labor, and was rapidly approaching—at least in the richer districts of the country—*the horticultural system*, in which at once the greatest produce is obtained from the soil, and the greatest amount of human labor is employed in its cultivation; and in which the greatest manufacturing states of former days, Florence and Flanders, had, on the decay of their manufacturing industry, found a never-failing resource for a denser population than now exists in Great Britain.

* It was ascertained, from an accurate return obtained by the Magistrates of Glasgow, that the number of persons who arrived at that city by the Clyde, or the Ayrshire railway, in four months preceeding 10th April, 1848, was 42,860.

But, more than all, England possessed, in her immense and rapidly increasing colonies in every quarter of the globe, at once an inexhaustible vent and place of deposit for its surplus home-population, the safest and most rapidly-increasing market for its manufacturing industry, and the most certain means, in the keeping up the communication between the different parts of so vast a dominion, of maintaining and extending its maritime superiority. This was a resource unknown to any former state, and apparently reserved for the Anglo-Saxon race, whom such mighty destinies awaited in the progress of mankind. The forests of Canada, the steppes of Australia, the hills of New Zealand, the savannahs of the Cape, seemed spread out by nature to receive the numerous and sturdy children of the Anglo-Saxon race, whom the natural progress of opulence, the division of labor, the extension of machinery, and the substitution of female and juvenile for male labor, were depriving of employment in their native seats. In the colonies, manual labor was as much in demand as it was redundant in the parent state. No machinery or manufactures existed there to displace the arm of the laborer's industry; the felling of the forest, the draining of the morass, the cultivation of the wild, chained the great majority of the human race to agricultural employments, for generations and centuries to come. Even the redundant number and rapid increase of the Celtic population in Ireland could not keep pace with the demand for agricultural labor in our Transatlantic dominions. The undue preponderance of the female sex, felt as so great and consuming an evil in all old and wealthy cities, might be rendered the greatest possible blessing to the infant colonies, in which the greatest social evil always experienced is the excessive numbers of the male sex. All that was required was the removal of them from the overburdened heart to the famishing extremities of the empire; and this, while it relieved the labor, promissed to afford ample employment to the national navy. The magnitude of this traffic may be judged of by the fact that the 212,000 emigrants who arrived at New York in the year 1850 were brought in 2000 vessels. At the same time the rapid growth of the colonies, under such a system, would have furnished a steady market for the most extensive manufacturing industry at home, and that in a class of men descended from ourselves, imbued with our habits, actuated by feeling our wants, and chained by circumstances, for centuries to come, to the exclusive consumption of our manufactures. What the magnitude of this market might have been may be judged of by the fact that, in the year 1850, Australia and New Zealand, with a population which had not yet reached 250,000 souls, took off in the year 1850, £2,080,364 of our manufactures, being at the rate of £8 a head; while Russia, with a population of 66,000,000, only took off £1,572,593 worth, being not 6d. a head.*

* Parliamentary Return, 1851.

The social evils which at first sight appear so alarming, therefore, in consequence of the extension of our manufacturing population, and the vast increase of our wealth, were in reality not only easily susceptible of remedy, but they might, by a wise and paternal policy, alive equally to the interests *represented and unrepresented* of all parts of the empire, have been converted into so many sources of increasing prosperity and durable social happiness. All that was required was to adopt a policy conducive alike to the interests of *all* parts of our varied dominions, but giving no one an undue advantage over the other; legislating for India as if the seat of empire were Calcutta, for Canada as if it were Quebec, for the West Indies as if it were Kingston. "Non alia Romæ alia Athenæ," should have been our maxim. Equal justice to all would have secured equal social happiness to all. The distress and want of employment consequent on the extension of machinery, and the growth of opulence in the heart of the empire, would have become the great moving power which would have overcome the attachments of home and country, and impelled the multitudes whom our transmarine dominions required into those distant but still British settlements, where ample room was to be found for their comfort and increase, and where their rapidly increasing numbers would have operated with powerful effect, and in a geometrical ratio, on the industry and happiness of the parent state. Protection to native industry at home and abroad was all that was required to bless and hold together the mighty fabric. So various and extensive were the British dominions, that they soon would have arrived at the point of being independent of all the rest of the world. The materials for our fabrics, the food for our people, were to be had in abundance in the different parts of our own dominions. We had no reason to fear the hostility or the stopping of supplies from any foreign power. The trade of almost the whole globe was to Great Britain a home trade, and brought with it its blessings and its double return, at each end of the chain.

These great and magnificent objects, which are as clearly pointed out by Providence as the mission of the British nation—and which the peculiar character of the Anglo-Saxon race so evidently qualified it to discharge—as if it had been declared in thunders from Mount Sinai, were in a great degree attained, though in an indirect way, under the old constitution of England; and accordingly, while it lasted, and was undisturbed in its action by local influences in the heart of the empire, distress was comparatively unknown at home, and disaffection was unheard of in our distant settlements. The proof of this is decisive. The tables already given in the former part of this paper demonstrate when distress at home and sedition abroad seriously set in, when emigration advanced with the steps of a giant, and crime began to increase ten times as fast as the numbers of the people—and the poor-rates, despite all attempts to check them by fresh laws, threatened to swallow all but the for-

tunes of the *millionaires* in the kingdom. *It was after* 1819 *that all this took place.* Previous to this, or at least previous to 1816, when the approaching great monetary change of that year was intimated to the Bank, and the contraction of the currency really began, distress at home was comparatively unknown, and the most unbounded loyalty existed in our colonial settlements in every part of the world. But from that date our policy at home and abroad underwent a total change. Everything was changed with the change in the ruling influences in the state. The words of the Christian bishop who converted Clovis were acted upon to the letter—"Brulez ce que vous avez adore; adorez ce que vous avez brule." The moneyed came to supplant the territorial aristocracy, the interests of realised capital to prevail over those of industry and wealth in the course of formation. The Reform Bill confirmed and perpetuated this change, by giving the moneyed class a decided majority of votes in the House of Commons, and the House of Commons the practical government of the country. From that moment suffering marked us for her own. Misery spread in the heart of the empire; many of its most flourishing settlements abroad went to ruin; and such disaffection prevailed in all, that Government, foreseeing the dissolution of the empire, has already taken steps to conceal the fall of the fabric by voluntarily taking it to pieces.

Without going into details, unhappily too well known to all to require any lengthened illustration, it may be sufficient to refer to three circumstances which have not only immensely aggravated the internal distress and external disaffection of the empire, but interrupted and neutralised the influence of all those causes of relief provided for us by nature, and which, under a just and equal policy, would have entirely averted them.

The first of these, and perhaps the most disastrous in its effects upon the internal prosperity of the empire, was the great contraction of the currency which took place by the bill of 1819. By that bill the bank and bankers' notes, which at the close of the war had amounted, in Great Britain and Ireland, to about £60,000,000 in round numbers, were suddenly reduced to £32,000,000, which was the limit formally imposed, by the acts of 1844 and 1845, on the circulation issuable on securities in the country. We know the effect of these changes: the *Times* has told us what it has been. It rendered the sovereign worth two sovereigns; the fortune of £500,000 worth £1,000,000: the debt of £800,000,000 worth £1,600,000,000; the taxes of £50,000,000 worth £100,000,000 annually. As a necessary consequence, it reduced the average price of wheat from 90s. to 40s.; and the entire wages of labor and remuneration of industry, throughout the country, *to one-half* of their former amount. The prodigious effect of this change upon the real amount of the national burdens, and the remuneration of the industry which was to sustain it, may be judged

of by the invaluable table quoted on the next page, which is stated to be taken from Mr. Porter's valuable work on the *Progress of the Nation*, published in 1847, and furnished by that gentleman with his wonted courtesy to the *Midland Counties Herald*, to the end of 1850. Its import will be found to be correctly condensed in the following statement, by that able writer Gemini, contained in the the same paper of January 30:—

	S.	D.
"The average price of wheat from 1800 to the close of the war, was	90	7
The average price of wheat from the passage of the Corn Law of 1815 to 1827, each inclusive,	67	2
The average price of wheat from the passing of the Corn Law of 1828 to 1841, each inclusive,	58	10
The average price of wheat from the passing of the Corn Law of 1842 to 1849, each inclusive,	53	6
The average price of 1850,	40	2

"During the war the average quantity of wheat required to be sold to pay one million of taxation amounted to 220,791 quarters. The quantity required to be sold to pay one million of taxation according to the prices of 1850, amounts to 497,925 quarters, or 56,343 quarters more than *double* the quantity required to be sold during the war. The enormous increase in the burdensomeness of taxation may be thus clearly estimated."

Years.	Amount of revenue paid into the Exchequer, the produce of taxation.	Yearly average price of wheat per qr.		Revenue estimated in qrs. of wheat, at the average price of the year.	Rent of 200 acres of land, at 30s per acre, estimated in qrs. wheat.		Price of wheat at a 7 year's av'rage per qr.		Years.
	£	s.	d.	qrs.	qrs.	bus.	s.	d.	
1800	34.145.584	113	10	5.999.224	52	5	.....		1800
1801	34.113.146	119	6	5.709.313	50	1	.....		1801
1802	36.368.149	69	10	10.415.698	85	7	.....		1802
1803	38.609.392	58	10	13.125.005	101	7	.....		1803
1804	46.176.492	62	3	14.835.820	96	5	.....		1804
1805	50.897.706	89	9	11.342 107	65	6	.....		1805
1806	55.796.086	79	1	14.110.706	75	6	84	8	1806
1807	59.339.321	75	4	15.753.802	79	5	79	2	1807
1808	62.998.191	81	4	15.491.358	73	5	73	7	1808
1809	63.719.400	97	4	13.093.027	61	5	77	8	1809
1810	67.144.542	106	5	12.619.177	56	3	84	5	1810
1811	65.173.545	95	3	13.684.383	62	7	89	2	1811
1812	65.037.850	126	6	10.282.604	47	4	94	5	1812
1813	68.748.363	109	9	12.528.175	54	3	98	10	1813
1814	71.134.503	74	4	19.139.328	80	6	98	8	1814
1815	72.210.512	65	7	22.020.994	91	4	96	5	1815
1816	62.264.546	78	6	15.863.578	76	3	93	7	1816
1817	52.055.913	96	11	10.742.406	61	7	92	4	1817
1818	53.747.795	86	3	12.463.256	69	4	91	6	1818
1819	52.648.847	74	6	14.133.918	80	4	83	4	1819
1820	54.282.958	67	10	16.004.803	88	5	77	8	1820
1821	55.834.192	56	1	19.911.153	106	7	75	1	1821
1822	55.663.650	44	7	24.970.609	134	7	72	1	1822
1823	57.672.999	53	4	21.627.374	112	4	68	6	1823
1824	59.362.403	63	11	18.574.937	93	7	63	9	1824
1825	57.273.869	68	6	16.722.297	87	4	61	2	1825
1826	54.894.989	58	8	18.714.200	102	2	58	11	1826
1827	54.932.518	58	6	18.780.348	102	4	57	7	1827
1828	55.187.142	60	5	18.268.847	99	2	58	3	1828
1829	50.786.682	66	3	15.331.828	90	4	61	4	1829
1830	50.056.616	64	3	15.581.825	93	4	62	11	1830
1831	46.424.440	66	4	13.997.318	90	4	63	3	1831
1832	46.988.755	58	8	16.018.893	102	2	61	10	1832
1833	46.271.326	52	11	17.488.375	113	3	61	0	1833
1834	46.425.263	46	2	20.112.027	130	0	59	3	1834
1835	45.893.369	39	4	23.335.611	152	4	56	3	1835
1836	48.591.180	48	6	20.037.600	123	6	53	8	1836
1837	46.475.194	55	10	16.747.830	107	3	52	6	1837
1838	47.333.460	64	7	14.558.103	92	7	52	3	1838
1839	47.844.899	70	8	13.511.009	84	7	54	0	1839
1840	47.567.565	66	4	14.341.979	90	3	55	11	1840
1841	48.084.360	64	4	14.918.505	93	2	58	6	1841
1842	46.965.631	57	3	16.407.207	104	6	61	0	1842
1843	52.582.817	50	1	20.998 129	119	6	61	3	1843
1844	54.003.754	51	3	21.074.635	117	0	60	7	1844
1845	53.060.354	50	10	20.876.204	118	0	58	8	1845
1846	53.790.138	54	8	19.679.318	109	6	56	4	1846
1847	51.546.265	69	9	14.780.291	86	0	56	10	1847
1848	53.388.717	50	6	21.144.046	118	7	54	10	1848
1849	52.951.749	44	3	23.932.993	135	4	53	0	1849
1850	.....	40	2	.....	149	3	51	6	1850

—*Midland Counties Herald*, January 31, 1851. The prices of wheat here given are the *average* prices of the year.

Comment is unnecessary, illustration superfluous, on such a result.

In the next place, prodigious as was the addition which this great change made to the burdens, public and private, of the nation, the change was attended with an alteration at times still more hurtful, and, in the end, not less pernicious. This was the compelling the bank to pay *all* their notes in gold, the restraining them from issuing paper beyond £14,000,000 bond on securities, and compelling them to take all gold brought to them, whatever its market value was, at the fixed price of £3, 17s. 10½d. the ounce. This at once aggravated speculation to a most fearful degree in periods of prosperity, for it left the bank no way of indemnifying itself for the purchase and retention of £15,000,000 or £16,000,000 worth of treasure but by pushing its business in all directions, and lowering its discounts so as to accomplish that object; and it led to a rapid and ruinous contraction of the currency the moment that exchanges became adverse, and a drain set in upon the bank, either from the necessities of foreign war in the neighboring states, the mutation of commerce, or the occurrence of a large importation of grain to supply the wants of our own country. Incalculable as the distress which those alternations of impulse and depression have brought upon this great manufacturing community, and immeasurable the multitudes whom they have sunk, never more to rise, into the lowest and most destitute classes of society, their effect has by no means been confined to the periods during which they actually lasted. Their baneful influence has extended to subsequent times, and produced a continuous and almost unbroken stream of distress; for, long ere the victims of one monetary crisis have sunk into the grave, or been driven into exile, another storm arises which precipitates fresh multitudes, especially in the manufacturing towns, into the abyss of ruin. The whole, or nearly the whole, of this terrific and continued suffering is to be ascribed to the monstrous principles adopted in our monetary system—that of compelling the banks to foster and encourage speculation in periods of prosperity, and suddenly contract their issues and starve the body politic, when a demand for the precious metals carries them in considerable quantities out of the country. A memorable instance of the working of that system is to be found in the Railway mania of 1845 and 1846, flowing directly from the Acts of 1844 and 1845, which landed the nation in an extra expenditure of nearly £300,000,000 on domestic undertakings, at a time when commerce of every kind was in a state of the highest activity, followed by the dreadful crash of October 1847, which, by suddenly contracting the currency and ruining credit, threw millions out of employment, and strained the real capital of the nation to the very uttermost, to complete a part only of the undertakings which the Currency Laws had given birth to. And the example of the years 1809 and 1810—when the whole metallic currency was

drained out of the country by the demands for the war in the Peninsula and Germany, but no distress was experienced, and the national strength was put forth with unparalleled vigour, and, as it proved, decisive effect—proves how easily such a crisis might be averted by the extended issue of a paper currency not liable to be withdrawn, when most required, by a public run for gold.

In the third place, to crown the whole, and as if to put the keystone in the arch of public distress, Free-Trade in every department was forced upon the country by Sir Robert Peel and his successors in 1846, 1847, and 1849, under the dictation of the Manchester school, and to promote the interest of master-manufacturers by lowering the wages of labor and of realized capital, by cheapening the price of everything else, and raising the value of money. We see the effects of this already evinced in every department to which the system has applied; and we see the commencement only of the general ruin with which it is fraught. In agriculture, Great Britain and Ireland, which were, practically speaking, in ordinary seasons, self-supporting, have come already to import from *nine to ten millions* of foreign grain for the support of the inhabitants, besides sheep and cattle in an equal proportion. At least fifteen millions yearly is sent out of the country, for the most part in hard cash, to buy food, which formerly was nearly all spent in it, and enriched all classes of its people. The exchangeable value of what remains has been lowered by at least £75,000,000 annually, and of course so much taken away from the means of supporting domestic labor, and paying the national defences and the interest of public and private debt. The West Indies, formerly the right arm of the naval strength of England, and no small source of its riches, have been *totally ruined;* and, as a necessary consequence, the exports of our manufactures to those once splendid settlements, which, prior to the commencement of the new measures in 1834, had reached £3,500,000 a-year, had sunk in 1850 to £1,821,146! Canada has been so much impoverished by the withdrawing of all protection to colonial industry which has annihilated its intercolonial trade with the West Indies, and seriously injured its export trade in grain and wood to this country, that the British exports to that country, which in 1839 amounted to £3,047,000, had sunk in 1850, notwithstanding the subsequent addition of above 50 per cent. to its population, to £2,280.386.

EXPORTS TO

	Canada.	West-Indies.
1839	£3,047,671	£3,986,598
1840	2,847,970	3,574,970
1841	2,947,061	3,504,004
1850	2,280,386	1,821,146

In Ireland from four to five hundred thousand acres have gone

out of the cultivation of wheat alone, although the calamitous failure of the potato crop in 1846, and the subsequent doubts as to the success of that prolific esculent, should have tended to an *increase* of cereal crops as the only thing that could be relied on, and undoubtedly would have done so, but for the blasting influence of Free Trade, which deprived the farmer of all hope of a profitable return for agricultural expenditure. As a necessary consequence, above 200,000 cultivators have disappeared from the soil of the Emerald Isle in the four last years; about 250,000 of them or their families are immured, idle and miserable, in the Irish workhouses, and above 40,000 in its prisons; while above 200,000 persons from that Island alone, and 300,000 from the two islands, are annually driven into exile! Lastly, as if Free Trade had not worked sufficient mischief on the land, it has invaded the sea also; no longer can the Englishman say—

> "His march is on the mountain wave,
> His home is on the deep."

The ocean is fast becoming the home for other people, to the exclusion of its ancient lords. One single year of Free Trade in shipping, following the repeal of the Navigation Laws, has occasioned under the most favorable circumstances for testing the tendency of the change, so great a diminution in British and increase in foreign shipping in all our harbors, that it is evident the time is rapidly approaching, if the present system is continued, when we must renounce all thought of maintaining naval superiority, and trust to the tender mercies of our enemies and rivals for a respite from the evils of blockade and famine.*

The vast emigration of 300,000 annually, which is now going on from the United Kingdom, might reasonably be expected to have alleviated, in a great degree, this most calamitous decrease in the staple branches of industry in our people; and so it would have, certainly, had a wise and paternal Government taken it un-

* The following Returns from three seaports alone—London, Liverpool, and Dublin—in 1849 & 1850, will show how rapidly this ruinous process is going on:—

	1849.		1850.	
	Ships.	Tons.	Ships.	Tons.
I. London—British,...	6,917	1,444,311	6,497	1,376,233
Foreign,..	3,040	433,929	3,413	527,174
II. Liverpool—British, Foreign		56,500		124,800
III. Dublin—British, ...	351	63,263	279	44,146
Foreign,..	125	27,774	183	39,250

[*Continued.*

der its own direction, and sent the parties abroad who really were likely to want employment, and whose removal would at once prove a relief to the country from which they were sent, and a blessing to that for which they were destined. But this is so far from being the case, that there is perhaps no one circumstance in our social condition which has done more of late years to aggravate the want of employment, and enhance the distress among the working-classes than *the very magnitude of this emigration.* The dogma of Free Trade has involved even the humble cabins of the emigrant's ship: there, as elsewhere, it has spread nothing but misery and desolation. The reason is, that it has been left to the unaided, undirected efforts of the emigrants themselves.

Government was too glad of an excuse not to interfere: the constantly destitute condition of the Treasury, and the ceaseless clamour against taxation, in consequence of the wasting away of the national resources under the action of Free Trade and a contracted currency, made them too happy of any excuse for avoiding any payments from the public Treasury, even on behalf of the most suffering and destitute of the community. This excuse was found in the plausible plea, that any advances on their part would interfere with the free exercise of individual enterprise—a plea somewhat similar to what it would be if all laws for the protection of paupers, minors, and lunatics were swept away, lest the free action of the creditors on their estates should be disturbed. The consequence has been, that the whole, or nearly the whole, of the immense stream of emigration which general distress has now caused to flow from the British Islands, has been sustained by the efforts of private individuals, and left to the tender mercies of the owners or freighters of emigrant ships. The result is well known. Frightful disasters, from imperfect manning and equipment, have occurred to several of these misery-laden vessels. A helpless multitude is thrown ashore, at New York and Montreal, destitute alike of food, clothing, or the means of getting on to the frontier, where its labor could be of value; and the competition for employment at home has been increased to a frightful degree by the re-

RETURNS—*Continued.*

	Decrease of British.		Increase of Foreign.	
	Ships.	Tons.	Ships.	Tons.
I. LONDON,.....	240	78,078	373	83,251
II. LIVERPOOL, ...				78,300
III. DUBLIN,.....	72	19,117	58	11,476
Total,.....				173,027

moval of so large a proportion of such of the tenantry or middle class as were possessed of little capitals, and had the means either of maintaining themselves or giving employment to others. At least £3,000,000 yearly goes abroad with the emigrant ships, and that is drawn almost entirely from the lower class of farmers, the very men who employ the poor. The class who have gone away was for the most part that which should have remained, for it had the means of doing something in the world, and employing others; that which was left at home, was that which should have been removed, because they were the destitute who could neither find employment in these islands, nor do anything on their own account from want of funds. Hence above a million and a-half of persons in Great Britain, and above seven hundred thousand in Ireland, on an average of years are constantly maintained by the poor rates, for the most part in utter idleness, although the half of them are able bodied, and their labor—if they could only be forwarded to the frontier of civilization in America—would be of incalculable service to our own colonies or the United States.

The very magnitude of the trade employed in the exportation of the emigrants, and the importation of food for those who remain, has gone far to conceal the ruinous effects of Free Trade. Between the carrying out of emigrants, and the bringing in of grain—the exportations of our strength, and the importation of our weakness—our chief seaports may continue for some time to drive a gainful traffic. The *Liverpool Times* observes:—

"The number of emigrant vessels which sailed from Liverpool during the last year, was 568. Of these vessels, many are from 1500 to 2000 tons burden, and a few of them even reach 3000 tons. They are amongst the finest vessels that ever were built, are well commanded, well-manned, fitted out in excellent style, and present a wonderful improvement in all respects, when compared with the same class of vessels even half a dozen years ago. Taking the average passage money of each passenger in these vessels at £6, the conveying of emigrants yields a revenue of upwards of £1,000,000 sterling to the shipping which belongs to or frequents this port, independent of the great amount of money which the passage of such an immense multitude of persons through the town must cause to be spent in it. In fact, the passage and conveyance of emigrants has become one of the greatest trades of Liverpool." —*Liverpool Times*, Jan. 10, 1851.

The number of emigrants from the Mersey and the Clyde, since the days of Free Trade began, have been prodigious, and rapidly increasing. They have stood thus:—

Year.	Liverpool.	Clyde.
1847	134,523	7,728
1848	131,121	10,035
1849	153,902	14,968
1850	174,187	14,203

It was precisely the same in the declining days of the Roman Empire—the great seaport towns continued to flourish when all other interests in the state were rapidly sinking: and when the plains in the interior were desolate, or tenanted only by the ox or the buffalo, the great cities were still the abodes of vast realized wealth and unbounded private luxury. We are rapidly following in the same path. The realized capital of Great Britain was estimated in 1814 at £1,200,000,000; in 1841, Mr. Porter estimated it at £2,000,000,000; the capital subject to legacy duty in Great Britain, on an average of forty-one years, from 1797 to 1841, was £26,000,000; in the single year 1840 it was £40,500,000. The increase of realized capital among the rich has been nearly as great as that of pauperism, misery, and consequent emigration among the poor—the well-known and oft-observed premonitory symptoms of the decline of nations.

It is in the midst of these numerous and overwhelming evils, the result mainly of theoretical innovation and class government in the country—when above two millions of paupers in the two islands are painfully supported by public assessment; when three hundred thousand are annually driven into exile, and a hundred and fifty thousand more are constantly supported in jails, one-half of whom are committed for serious crimes;* when all classes, excepting those engaged in the export trade of human beings, and the import of human food, are languishing from the decline of domestic employment, and the constantly increasing influx of foreign goods, both rude and manufactured—that we are assured by one benevolent set of philanthropists that all will be right, if we only give the starving working classes model houses, rented at £8 each, to live in; by another, that ragged schools for their destitute children will set all in order; by a third, that a schoolmaster in every wynd is alone required to remove all the evils under which we labor; by a fourth, that cold baths and wash-houses to lave their emaciated limbs, are the great thing; by a fifth, that church extension is the only effectual remedy, and that, till there is a minister for every seven hundred inhabitants, it is in vain to hope for any social amelioration. We respect the motives which actuate each and all these benevolent laborers in the great vineyard of human suffering; we acknowledge that each within a limited sphere does some good, and extricates a certain number of individuals or families out of the abyss of degradation or suffering in which they are immersed. As to anything like national relief, or alleviation of distress in any sensible degree from their united efforts, when the great causes of evil which have been mentioned continue in undiminished activity, it is as chimerical as to expect by the schoolmaster or the washing-woman to arrest the ravages of the plague or the cholera.

Two circumstances of general operation, and overwhelming importance, render all these various and partial remedies, while the

* Including the police committals, much more numerous than those for trial.

great causes which depress the demand for labor and deprive the people of employment continue in operation, entirely nugatory and ineffectual, in a general view, to arrest our social evils.

The first of these is, that these remedies, one and all of them, are calculated for the elevation and intellectual, or moral improvement of the people, but have no tendency to improve their circumstances, or diminish the load of pauperism, destitution, and misery with which they are overwhelmed. Until the latter is done, however, all the efforts made for the attainment of the former, how benevolent and praiseworthy soever, will have no general effect, and in a national point of view, may be regarded as almost equal to nothing. The reason is that, generally speaking, the human race are governed, in the first instance, almost entirely by their physical sufferings or comforts, and that intellectual or moral improvement cannot be either thought of or attended to till a certain degree of ease as to the imperious demands of physical nature has been attained. In every age, doubtless, there are some persons of both sexes who will heroically struggle against the utmost physical privation, and pursue the path of virtue, or sedulously improve their minds, under circumstances the most adverse, and with facilities the most inconsiderable. But these are the exceptions, not the rule. The number of such persons is so inconsiderable, compared to the immense mass who are governed by their physical sensations, that remedies addressed to the intellect of man, without reference to the improvement of his circumstances, can never operate generally upon society. Even the most intellectual and powerful minds must give way under a certain amount of physical want or necessity. Take Newton and Milton, Bacon and Descartes, Cervantes and Cicero, and make them walk thirty miles in a wintry day, and come in to a wretched hovel at night, and see what they will desire. Rely upon it, it will be neither philosophy nor poetry, but warmth and food. A good fire and a good supper would attract them from all the works which have rendered their names immortal. Can we expect the great body of mankind to be less under the influence of the imperious demands of our common physical nature than the most gifted of the human race? What do the people constantly ask for? It is neither cold baths nor warm baths, ragged schools nor normal schools, churches nor chapels, model houses nor mechanics' institutes—"It is a day's wage for a fair day's work." We would all do the same in their circumstances. Give them *that*, the one thing needful alike for social happiness and moral improvement, and you make a mighty step in social amelioration and elevation; because you lay *the foundation* on which it all rests, and on which it must, in a general point of view, all depend—without it, all the rest will be found to be as much thrown away as the seed cast on the arid desert.

In the next place, the intellectual cultivation and elevation which is regarded by so large a political party, and so numerous a body

of benevolent individuals, as the panacea of all our social evils, never has affected, and never can affect, more than a limited class in society. We may indeed teach all, to read; but can we make them all read books, or still more, read books that will do them any good, when they leave school, and become their own masters, and are involved in the cares, oppressed with the labors, and exposed to the temptations of the world? Did any man ever find a fifth of his acquaintance of any rank, from the House of Peers and the Bar downwards, who were really and practically directed in manhood and womanhood by intellectual pleasures or pursuits? Habit, early training, easy circumstances, absence of temptation, a fortunate marriage, or the like, are the real circumstances which retain the great body of the human race of every rank in the right path. They are neither positively bad, nor positively good: they are characters of imperfect goodness, and mainly swayed by their physical circumstances. If you come to a crisis with them, when the selfish or generous feelings must be acted upon, nine-tenths of them will be swayed by the former. The disciples of Rousseau will contest these propositions: we would only recommend them to look around them, and see whether or not they are demonstrated by every day's experience in every rank of life. We wish it were otherwise; but we must take mankind as they are, and legislate for them on their *average* capacity, without supposing that they are generally to be influenced by the intellectual appliances adapted only to a small fraction of their number. And, accordingly, upon looking at the statistical tables given in the commencement of this Essay, it will be found that, while emigration, crime, and pauperism, have advanced rapidly, despite all the efforts of philanthropy and religion, which are *permanent*, but affect only a part of society, they exhibit the most remarkable fluctuations, according to the prosperity or distress of *particular* years, because the causes *then* in operation affected the *whole* of mankind.

The only way, therefore, in which the physical circumstances of the great body of mankind can be ameliorated, or room can be afforded for the moral and intellectual elevation of such of them as have received from nature minds susceptible of such training, is by restoring *the equilibrium between the demand for labor and the numbers of the people*, which our late measures have done so much to subvert. By that means, and that means *alone*, can the innumerable social evils under which we labor be alleviated. Without it, all the other remedies devised by philanthropy, pursued with zeal, cherished by hope, will prove ineffectual. How that is to be done must be evident to every person of common understanding. The demand for labor must be increased, the supply of labor must be diminished. The first can only be done by a moderate degree of Protection to Native Industry, at present beaten down to the dust in every department by the competition of foreign states, where money is more scarce and taxation lighter, and consequently

production is less expensive. The second can only be attained by a systematic emigration, conducted at the public expense, and drawing off annually an hundred or an hundred and fifty thousand of the *most destitute* of the community, who have not the means of transport for themselves, and, if not so removed, will permanently encumber our streets, our jails, our workhouses.

But money is required for these things; and where, it will be asked, is money to be found in this already overtaxed and suffering community? The answer is, the money-question is the easiest of all; for it will be attained in abundance by the very means requisite to attain the other objects. Protection, even on the most moderate scale, to Native Industry, is not to be attained without the imposition of import-duties; and that will at once produce the funds requisite for the attainment of all these objects. Laid on the importation of all goods, rude or manufactured, they would yield such a revenue as would enable us to take off the Income Tax, and thereby let loose £5,500,000 a-year, now absorbed by it, for the encouragement of domestic industry. Agriculture, manufactures of all sorts, would take a renewed start from the exclusion, to a certain degree, of foreign competition. Domestic industry would cease to languish, because the ruinous competition of foreigners working at a third of our wages would be checked. By these means an ample fund would be raised to enable us to transport, at the public expense, and comfortably settle in their new habitation, some hundred thousand annually of the most destitute class of our people—that class who cannot get away themselves, and, as they are thrown out of employment by Free Trade, now encumber our hospitals, jails, and workhouses. We would convert them from paupers into healthful and sturdy emigrants, doubling in numbers, with constant additions from the parent state, every ten years; and consuming £8 a-head worth of our manufactures. Property in the colonies would double in value every five years, from the joint effect of domestic labor, and the prolific stream of external immigration; and every acre cleared in these fertile wilds would cause a wheel to revolve, or a spindle to move, or a family to be blessed, in the parent state.

We can affix no limits in imagination to what the British Empire might become, or the amount of social and general happiness it might contain, with the physical advantages which nature has given it, and the character which race, and consequent institutions, have impressed upon its inhabitants. In the centre of the Empire stands the parent state, teeming with energy, overflowing with inhabitants, with coal and ironstone in its bosom capable of putting in motion manufactories for the supply of half the globe. In the extremities are colonies in every quarter of the earth, possessing waste lands of boundless extent and inexhaustible fertility, producing every luxury which the heart of man can desire, and one only of which could furnish the whole staple required for its greatest

fabrics.* With such providential wisdom were the various parts of this immense empire fitted for each other; so marvellously was the surplus, whether in animated beings or rude produce, of one part adapted to the deficiencies and wants of another, that nothing but a just and equal system of government, alive to the wants, and solicitous for the interests, of every part of its vast dominion, was requisite to render it the most united, prosperous, growing, and powerful state that ever existed on the face of the earth. The Roman Empire, while spread around the shores of the Mediterranean Sea, affords but a faint image of what it might have been. *The ocean was its inland lake;* the British navy its internal means of communication; the foreign trade of the whole earth its home trade. We obtained the empire of the seas precisely to enable us to carry out this magnificent destiny; the victory of Trafalgar presented it to our grasp. But a just and equal system of government was essential to the existence and duration of so immense a dominion; a sense of fair administration, a consciousness of protected interests, would alone hold it together for any length of time. The simple precept of the gospel, "to do to others as we would they should do unto us," would, if duly carried into practice, have for ever kept united the mighty fabric, and caused it to embrace in peace and happiness half the globe. This object was practically attained by the virtual representation of all classes, interests, and colonies under the old constitution; and thence the steady growth, vast extent and unvarying loyalty during many a severe contest, of this multifarious dominion. The new constitution, by vesting the government in the representatives of our manufacturing towns, and thence introducing the rule of class interests, is visibly and rapidly destroying it. The only remedy practicable —and even that is so only for a short season—is the *extension to the colonies of a direct share in the Imperial Parliament;* but that is far too just and wise a measure to permit the hope that it will ever be embraced by the class interests who now rule the state.

Notwithstanding all the obvious advantages of the course of policy which we have recommended—though it would at once furnish the means, as we have shown in a former paper, of obviating our external dangers and maintaining our national independence,

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* "At present the native consumption of cotton in India is estimated at from 1,000,000,000 lb. to 3,000,000,000 lb. annually; while the export to Great Britain is only 60,000,000 lb., and to all the world only 150,000,000 lb. In this state of things, the rough production that suits the home market will, of course, only be carried on; while, if sufficient means of conveyance existed to render the cotton that is now grown in the interior, at 1½d. per lb., remunerative for export, increased care in its preparation would be manifested, as was the case in the United States, just in proportion to the increased reward that would result. In developing these views, Mr. Chapman undertakes to demonstrate, by well-arranged facts and tables, that the export of cotton from India to England has risen exactly as the difficulties or expense of its transmission have been diminished; and also that costs and impediments still remain which are sufficient to account for the smallness of the quantity we continue to receive."—*Times*, Jan. 1851.

and at the same time relieve our internal distresses and extend and consolidate our colonial dependencies—we have scarcely any hope that it will be adopted. The Freetraders have got such hold of the burghs—to which the Reform Bill gave a decided majority in the House of Commons—and their leaders so perseveringly pursue their own *immediate* interest, without the slightest regard to the ruin they are bringing upon all other interests of the state, that the hope of any change of policy—at least till some terrible external disaster has opened the eyes of the nation to a sense of the impending calamities brought on them by their rulers—may be regarded as hopeless, without a general national effort. This imposition of a moderate import duty upon the produce, whether rude or manufactured, of all other nations, but with an entire exemption to our own colonies, is obviously the first step in the right direction, and would go far to alleviate our distresses, and at the same time replenish the public Treasury and avert our external dangers. In taking it we should only be following the example of America, Prussia, and nearly all other nations, who levy a duty of 30 per cent. on our manufactures, and thereby make us pay half of their taxes. But it is to be feared the mania of Free Trade will prevail over a wise and expedient policy, calculated equally to advance the interests of all classes in the state. We do not say, therefore, that any such system will be adopted; but this we do say, and with these words we nail our colors to the mast,—PROTECTION MUST BE RESTORED, OR THE BRITISH EMPIRE WILL BE DESTROYED.

[For the Western Journal.]

ARTICLE IV.

GOVERNMENT AND EDUCATION.

BY A MEMBER OF THE KEOKUK (IOWA) BAR.

To explore the foundations of civil government—to survey its noble structure and admirable proportions, and, above all, to investigate the original end and purpose of its institution, are among the most grateful, instructive, and delightful employments of the human mind: and, as the examination of this subject is interesting and profitable, when viewed as a whole, so, is it equally so, when examined in its parts. I propose to discuss a topic kindred with it—of great public importance, and one, which I fear is too much neglected—I mean the duty of government to promote public instruction.

The theme is distinguished, at once, for its simple grandeur and vast utility. The cause of education—its intimate connection with all our social and civil relations and the correlative obligations growing out of this connexion, shadow forth the outline of a subject replete with profound interest. It affects every condition in life—mingles itself with individual character and individual destiny, and penetrates the entire constitution of society. Reason and experience both demonstrate, that a sound and enlightened system of public education, will invariably elevate the standard of morals, sanctify the cause of Religion and consecrate the social compact to its original and holy purpose of advancing human happiness. It has for its design, the culture of our moral and intellectual nature, so as to qualify us for the honorable discharge of every duty, and aid us in laying broader and deeper the foundations of our national greatness. It seeks to consolidate and beautify the fabric of our social system—imparts wisdom and stability to our legislative councils and renders pure and truthful and sacred the temples of justice.

I wish to conciliate the good will and engage the affections of my reader in this subject—I wish to influence favorably and impress deeply public opinion so far as it may be in my power to do so—I wish to vindicate and enforce the stern obligations which our Legislators have to perform in this business. I think, I comprehend the importance of education—I think I appreciate thoroughly its relations and influences, and I think it to be the duty of educated mind to lend its learning and power, in its advocacy and behalf. I think so, from a thorough conviction that the *intellect of the age* requires the instrumentality of all the means and influences within our command; I think so, because of the wild flood of latitudinarian thought and revolutionary doctrine that is pouring its troubled waters for good or for evil on the length and breadth of our Continent;—I think so, from a fixed opinion that we live and move in the midst of events and changes affecting deeply the moral and intellectual condition of man. I believe the age is one of conflicting action—peaceful revolution—steadfast progression—inwrought with stirring incident and fraught with most important results; and, I believe that our position as members of a free representative government moulded and influenced so materially by public opinion is one involving extraordinary responsibility and imposing on each and every of us unusual and transcendant obligations. The question of public education is eminently a practical one and ought to be so viewed and discussed. It affects, deeply, the security of property in an impartial and enlightened administration of public justice, and likewise the very existence of civil freedom through the moral elements intermingling with and controlling society. It reaches the hearts and consciences of us all. No one is so great or so humble as to escape its individual influence, or not to be involved, to a greater or less extent, in its de-

cision. And yet, I apprehend that our public officers are not sufficiently penetrated with a conviction of their duty to establish public instruction and diffuse useful knowledge: and I fear, too, that the obligations we are all under to society, to humanity, and to God as free and educated men, and the peculiar accountabilities flowing out of our social and political relations, are but imperfectly understood, or if understood, but very inadequately discharged.

I wish I could bring to this interesting investigation more of philosophy—of original thought and pregnant illustration, than I possess. I wish I could stamp the civil blessings and eminent advantages of education as clearly and deeply on the mind and heart of my reader, as their importance and necessity are forcibly impressed upon my own. I wish I could fix the attention of our Legislators upon the paramount necessity of a more efficient, practical and comprehensive system of general instruction, and rouse the slumbering spirit of their eloquence in its vindication, and we would soon witness a new era in the history and power of the human mind and in the solid intelligence and moral grandeur of the age in which we live.

In discussing this subject, I would premise my argument by laying down the three following propositions as entirely true and susceptible of demonstration.

1st. I affirm it to be true—that the faithful fulfilment of all duty and moral obligation is inseparably interwoven with our well being. Our highest interest consists in the pursuit of true and substantial happiness: In this, centre the first law and the great end of our creation. It is now, and should always be, a sovereign principle—pervading the administration of law and equity in every department—reaching the highest seats of power, and entwining itself with the exercise of our civil and social privileges. Justice is an emanation from the divine throne, "her seat is the bosom of God, and her voice, the harmony of the world."

2d. I hold this further truth—that the true end and design of the institution of government, are to establish and enlarge the happiness of its members. This constitutes its original and legitimate purpose. Upon this foundation alone can it be vindicated; and when it ceases to perform, or becomes incapable of performing this purpose, it then ceases to be useful or valuable, and should be so modified or reconstructed as to answer the purposes of its institution.

3d. I also maintain—that the establishment of an enlightened and efficient system of popular education constitutes an important, substantive duty of government—a conservative element in its existence, not only consistent with, but promotive of its well being—and that a corresponding right rests with its members to require, yea, compel government to a faithful discharge of its duty. And, by duty I understand that which involves moral obligation—accountability to a higher power for fulfilment or non-fulfilment of

such obligation. To create moral responsibility there must of necessity exist *knowledge* and *ability—knowledge* to comprehend, and *ability* to perform the requisition. If either ceases to exist, the responsibility, from the nature of the case, ceases with it.

Whenever there is a duty on the one hand, there exists a corresponding right on the other; and if there exists an imperative duty to cultivate mind, there exists in him to whom we owe that duty, an absolute right to require its performance. If our talents and knowledge are given to us as simple trusts, we cannot separate the *use* from the *trust;* and we are answerable for the strict performance and execution of those trusts, so far as their nature and extent can be ascertained; and if Government is simply a trust to be exercised beneficially for the public welfare and prosperity—and if education forms an essential element of human happiness, without which our most exalted gifts and attributes would be but imperfectly developed—both of which positions I believe to be true—then the encouragement of learning enters deeply into the trust, and government must execute it in all its parts and with all its efficiency, or become responsible for its inadequate discharge, or its entire perversion. Such appears to me to be the proper understanding of the nature and foundation of civil society; and this view also strikingly illustrates its very close connection with the cause of popular instruction.

There are two general remarks connected with the duty of furthering mental culture that have always possessed great weight and consideration in my mind.

1st. Man is a compound being—a physical, moral, social, religious, and intellectual being; and in their exercise and cultivation, these components are all consistent with each other. Intellectual culture is not only promotive of physical effort in imparting to it intelligence and efficiency, but is indispensable to the free, vigorous, and complete development of our moral, social, and religious nature. It is through the mind, and the revelation of its faculties, and the energy, fulness and transparency of its thoughts, and the richness and refinement of its imagination, and the imperial majesty of its genius—that we are enabled to reach perfection in those distinguishing attributes of character we possess as intelligent beings; and precisely as the mind is educated, we educe a commensurate power of progression. Every new advancement in true knowledge imparts new discipline and confers new powers upon the mind.

2d. Our respective powers are given to us for *exercise* and *usefulness.* Independently of the commands of revelation, the lights of nature point to the necessity of action, faith, and energy. Experience demonstrates the same necessity. These faculties of the mind admit of boundless expansion and indefinite improvement. Why is this attribute stamped upon them, if not for an intelligent purpose? They acquire by exercise and culture, an accumulated

power for further acquisition,—what is this mysterious capacity interwoven with our mental organization but the eloquence of nature crying out from our very souls, for education, expansion, knowledge? The pursuits of virtue and benevolence exalt and purify the social affections and convey an inward, unspeakable satisfaction to the mind,—why these gratifying, compensatory influences except to encourage and animate us in the performance of duty? Indeed, everything above and around us, is in a state of action—progressive to some end. "Force, every where Force," exclaims an original Thinker, "we ourselves Force in the centre "of that. There is not a leaf rotting on the highway but has force "in it; how else could it rot? Nay, surely to an atheistical "Thinker, if such a one were possible, it must be a miracle too, "this huge, illimitable whirlwind force which envelops us here; "never resting whirlwind—high as immensity, old as eternity. "What is it? God's creation—the religious people answer, it is "the Almighty God's."

These things show that a spirit of action pervades the Universe —that great results are the creations of great action—that God's purposes are worked out and completed by action—that the varied faculties of the mind and the finest affections of the soul can only be unfolded, and educated, and perfected by action. Man cannot accomplish his high destinies—judgment cannot elaborate its reasoning—genius cannot achieve her trophies, or imagination paint its glowing imagery and weave its beautiful enchantments, without action, well-directed—long-continued, noble action. And he, who faithfully improves all the opportunities given to him, and who performs with fidelity what truly belongs to his calling in life—will not, cannot fail to reach a sphere of distinguished respectability and usefulness.

Having premised these observations, I will now proceed to examine education in its civil bearings and relations, and point out some of the reasons and duties which seem to indicate so clearly our public obligations in this matter.

My first argument is—that it is a solemn and paramount duty of all and every government to encourage public instruction. I care not what may be its organization, whether monarchical, aristocratical or republican—the duty reaches all,—it cannot be avoided without involving criminal neglect and a deliberate violation of our obligations to society. Many of the ancient nations were deeply impressed with this truth, and several of the monarchical empires on the continent of Europe have made most munificent donations, and endowed most lavishly, numerous excellent foundations for the instruction of their youth. The most profound writers on political and international jurisprudence concur in vindicating the importance of popular education, and its inseparable connection with the public prosperity and happiness. The soundness of their reasoning and the excellence of their philosophy are both displayed

in union of sentiment on this important subject. Puffendorf says an uneducated man "leads a life useless to others and harmful to himself." The eloquent and enlightened Vattel whose masterly effort on public law has wrought out so much for the cause of right, and justice, and civilization, in the intercourse and polity of nations, thus powerfully reasons on this subject. He says, "The "first impressions made on the mind are of the utmost importance "for the remainder of life. In the tender years of infancy and "youth, the human mind and heart easily receive the seeds of good "or evil. Hence the education of youth, is one of the most im- "portant affairs that deserve the attention of government. It "ought not to be entirely left to the Fathers. The most certain "way of forming good citizens, is to found good establishments "for public education—to provide them with able masters—direct "them with prudence and pursue such mild and suitable measures "that the citizens will not neglect to take advantage of them." Chancellor Kent, too, thus significantly speaks of the degrading influence of ignorance. "A parent," says this distinguished jurist, "who sends his son into the world uneducated, and without skill in "any art or science, does a great injury to mankind as well as to "his own family, for he defrauds the community of a useful citizen, "and bequeaths to it a nuisance." President Wayland, one of the clearest writers of the age on moral and political science, insists that, "To an intellectual being, in a cultivated state of society, a "certain amount of knowledge may be considereed a necessary of "life." I might multiply the evidence in corroboration of my argument, but it would only be cumulative: the chain of testimony is uniform and unbroken, and rests upon the same broad foundations of eternal and reciprocal right and duty.

Again—Education, in its character and universality, determines the value and usefulness of the citizen, and affects materially his ability and disposition to act efficiently for the public good. It is not, simply, the pernicious influences which ignorance may have over the individual, that indicate the entire duty of government; but it is the multiplex relations he bears to society, whose harmony is marred, and whose strength and symmetry are impaired;—it is the wound inflicted on the body politic by depriving it of the complete energy and efficiency of its members;—it is the loosening of the obligations and the disturbing of the relations that bind together and sustain and elevate government—which measure the dignity and magnitude of this duty. I need not dwell longer on this point.

My next argument is—that it is most peculiarly and emphatically the duty of our own government to establish educational institutions, and promote by a liberal and enlightened system of legislation the cause of public instruction. I will not dwell upon the prevailing conviction on this branch of my inquiry as evidenced in

our several State constitutions and in the legislation of Congress, but rather endeavor to ascertain the reasons and foundations of this duty.

Republics depend for their security and usefulness on the intelligence and virtue of the people. This observation has been so frequently repeated and its truth so often demonstrated, as to have resolved it into an axiom. When contemplated in its length and breadth, it is suggestive of a most interesting and instructive train of reflection;—it invites to an examination of the entire structure of society and of the multiplied influences by which it is affected. An elemental principle and cardinal feature of our Government, is that every citizen is constitutionally eligible to its highest offices. In no other country is this so especially the case as in our own. The virtuous and the vicious—the enlightened and the ignorant may acquire office and authority, and the destinies of the republic—freighted as it is with the most precious hopes and the profoundest instincts of humanity—may be fixed for weal or woe by the amount of moral and mental power entering into and controlling the administration of government. How necessary and indispensable it is, under this view, that men of pure minds and cultivated intellects should be selected for office—men thoroughly penetrated with the importance of their trust—appreciating the relations they sustain by the obligations they owe to society—of enlarged views of duty—of tried moral worth and sterling patriotism, and well versed in the civil and political history of their country. What guarantee has society for the faithful administration of its laws—the preservation of its liberties and the maintenance of its honor—if not in the knowledge and integrity of its representatives? Who can pilot the vessel of state successfully through the gloom and peril of storm and vicissitude, which, as they visit every nation, must visit our own, if we have not the influences of virtue and the lights of knowledge to inspire and guide us, and to illuminate the path before us!

But the *character* and *disposition* of the *representative* depend upon the *will* and *moral power* of the *constituent.* The right of suffrage prevails with us, and the people select in accordance with their preference and partiallities. In their judgment rest the choice and the result. The popular will moulds the character, and communicates tone to the spirit and scope of our legislation. It is the moving power which either elevates or depresses society: upon its influence—its stern sense of right—its intelligent spirit and its inflexible discharge of duty—in a great measure, repose the stability, the usefulness, and the beauty of our social and civil institutions.

And whence springs this popular will, and how and by what means is it moulded and exercised and controlled? How are opinions formed? Whence arises individual influence and power? What are the grand causes primarily affecting so permanently hu-

man character? These are grave questions—important considerations, deserving the most serious and thorough examination.

In view of the bearing of these interrogations upon the subject immediately under discussion, I would observe that education in its enlarged and appropriate signification determines the character, and influence, and opinions, and moral energy of the man. "The "laws of education," says Montesquieu, "are the first impressions "we receive. It is in a republican government that the whole "power of education is required." And the reason is obvious—because the very existence and arrangement of the social organization are dependent upon it. This government is a great social experiment springing from public opinion—fashioned by public opinion—reflecting public opinion—their influences acting and reacting upon each other, but the first impulse, and movement, and action originating in, and emanating from, public opinion. Public opinion, therefore, forms the foundation principle involving the existence, integrity, and vital energy of our institutions, and education, moral and intellectual, the master elements of this public opinion. A discriminating writer on American civilization (De Tocqueville) observes that, "In contemplating this fabric of gov-"ernment, it appears as a mighty school for developing the social "nature of man, and it is a school of that kind which nature dic-"tates. The social body controls its own destiny—suffers for its "own errors and enjoys the benefit of its own wisdom and virtue." And we might add, that it is a school not only to develop our social, but also our moral and intellectual nature—a school, not only to teach us the uses of adversity, but how to bear with becoming humility the blessings of prosperity;—a school to instruct us in the true offices of civil freedom and the limitations of individual power and liberty. The theatre in which we are called to act so prominent a part in the political history of the age, is indeed a grand one—constructed on modern principles and regulated by new machinery. Every person possesses equal rights and is responsible for the manner in which he performs his part. The entire system of our government, it is true, is exceedingly complex—with its major and minor wheels—its checks and balances; and the efficiency of its action, and the harmony of its movements are dependent on the skill and intelligence of its members who give it life and energy. Every citizen exercises, or may exercise, a greater amount of moral and social influence in our country than in any other. This arises from our peculiar organization, where every individual has a deep personal interest, and mingles directly in the concerns of government. Its honors and emoluments are open to him. Its richest privileges and its highest offices are within his reach. Let talent distinguish and virtue adorn his course, and he will be lifted up and borne onward by the very intelligence which surrounds him. No political barriers obstruct his progress. No patent of nobility or right of primogeniture shuts the door to pre-

ferment. He has a voice in all its elections and a direct interest in the ability and integrity of its administration. The position in which he is placed and the responsibilities imposed upon him—are unusual and extraordinary and inspire him with the noblest and loftiest conceptions of human dignity and duty. He feels that he is a Freeman. He looks abroad over this vast land—he sees sovereign States knit together by sovereign ties—their federative head deliberating on the grave questions of peace and of war—regulating our international intercourse—throwing out her protecting shield and serried phalanx along our frontiers afar off in the wilderness to guard the hardy pioneer from the incursions and massacres of the ruthless savage—fortifying with battery and embrazure our extended line of sea coast—sending forth her war ships o'er the mighty deep to protect our commerce and vindicate our honor—hanging out her beacon lights amid tempest, and lightning, and ocean rock, and mountain billow, to guide the weather beaten mariner in his perilous course, and legislating over the vast and complex interests of an empire whose prospective greatness and surpassing destinies are as yet unfathomed, and whose star in the march of power and dominion sets only on the shores of the mighty Pacific.

He sees State after State adopted into this family of nations—millions after millions added to her population—new stars arising and brightening in her hemisphere—new jewels adorning and enriching the crown of her imperial yet simple republican glory—forests retiring before the advance of civilization—plantations every where springing up and spreading themselves out in richness and in beauty—pleasant villages smiling in the plain and gleaming in the sun beams from the hill,—mighty cities, with their burnished domes and lofty turrets sending forth their whirl and hum of business—and happiness, and hope, and contentment reflected from every countenance. *He knows* that *his* is a broad and fertile land teeming with intelligence and enterprise—the hope of the patriot and the asylum for the oppressed;—and he feels, he rejoices that he is an American citizen. At this proud and noble thought, the blood courses quicker through his veins. His emotions are too big for expression. They swell his bosom and quicken the impulses of his heart. As he contemplates the mighty destinies of his country—her enterprise—her onward course—her increasing grandeur and her rapid stride in the march of empire—the proud consciousness that he is a co-laborer and co-partner in this noble and stupendous work—elevate his thoughts, increase, as it were, his very stature, and inspire him with a new heart and a new soul to become great and good himself, and to lift up his country to still greater power, and virtue, and splendour: and *liberty* and *hope* constitute the very soul and inspiration of all true intellectual advancement and individual eminence and authority: they are intimately allied with the finest impulses and loftiest

aspirations of the human mind. "God," says an eminent Divine, "has stamped upon our very humanity, this impress of freedom. "It is the unchartered prerogative of human nature. A soul "ceases to be a soul, in proportion as it ceases to be free."

Every judicious system of public instruction, ought, in my opinion, to insist upon the study of the civil and constitutional history of our country. The nature of civil liberty and free institutions —their advantages, influences and conditions, ought to be thoroughly understood. I know of no department of education so important in a Republic as this. Knowledge of government and society does not come by intuition. It is the result of careful investigation and thought:—and surely no one is capable of legislating understandingly—of administering the law with an intelligent impartiality or of discharging offices of trust in a manner promotive of the best interests and glory of his country, unless he is well versed in the civil history of the State and in the true philosophy of his government. An eminent writer on constitutional law well observes: "In a country like this, where all have a share in the government, "every one should be acquainted with its structure and principles. "The constitution by which the government is formed, and upon "which depends the validity of laws, the Union of the States and "the peace, dignity and happiness of the nation, should be a part "of the education of every citizen whatever his situation and oc-"cupation."

It is not to be questioned that this department of instruction is most shamefully neglected in our higher schools of education, where the habits of our youths are formed—their minds trained and their character and ability for usefulness in a great measure determined. Much time and money are expended in the acquirement of knowledge of little or no practical value to the exclusion of other attainments and accomplishments which would render them better citizens—happier men and bind them more closely to their country. If public opinion could be once steadily fixed upon this subject—if its controlling importance were more thoroughly and generally appreciated, I have no doubt an efficient remedy would be promptly interposed to correct this evil. The very great influence and importance of early impressions upon the mind, cannot be too earnestly insisted upon or too vividly portrayed. They cling to it through life. According to our view of duty, we would have the value of civil liberty and the nature of our institutions—social, civil, and religious—thoroughly, intimately interwoven with the whole plan and teachings of education in early life. Instead of associating deeds of heroism and greatness with the degrading and licentious mythology of the Ancients, we would associate them with the noble daring, the generous bravery, and the devoted patriotism of our own illustrious and immortal names. Instead of groping amidst the bewildering mists of antiquity for examples of virtue and illustrations of transcendent characters,

we would point our youth in the full, clear light of day, to our Washingtons, and Madisons, and Marshalls, and those other hosts of bright stars that shine out with such lustre and purity in the pages of our yet brief history. Instead of running back along the course of time to its early civilization and rude, unlettered condition, we would launch the student upon the broad stream that is bearing him forward on its bosom, and impress his soul with the magnitude of the events which are transpiring around him, and with a solemn sense of the duties he will have to discharge. Robert Hall in speaking of the influence of habit and early impressions in after life, very forcibly observes: "The actions of each day, are, "for the most part, links, which follow each other in the chain of "custom. Hence, the great effort of practical wisdom is to imbue "the mind with right tastes, affections and habits; the elements "of character and masters of action."

Let us, in this connection, ever remember, that all intellectual advancement to be truly valuable and profitable must be based on moral character. Education is not only radically defective, but positively dangerous to society, unless it has reference to the culture of the social affections and the moulding and perfecting of a sound and enlightened moral organization. It matters not, to what extent the intellectual faculties may be developed—or to what heights imagination may soar, or how illustrious the achievements, genius may perform;—it matters not, how stately and majestic may be the march of science, or how profound and varied the deductions of philosophy—if they are not controlled by a proper conception of moral accountability—if the conscience is not profoundly impressed with its multiplied and complex relations, then we have no firm ground in which to cast the anchor of hope—civil government has no permanent claim where to rest its welfare and happiness—virtue no broad and solid foundation on which to erect her throne and exercise her empire. An educated but unprincipled man is a dangerous member of society. He may exercise and does exercise an influence affecting deeply our dearest rights and most precious interests. I have thus endeavored to point out some of the connections existing between Government and Education, and their reciprocal actions and influences; and the subject, it will be perceived, is one of very great interest, complexity and extent.

(*To be continued.*)

ARTICLE V.

ILLINOIS AND MICHIGAN CANAL.

We published in the June number of the Western Journal an article from the Des Moines Valley Whig with some remarks of our own on "the course of trade," in which it was shown that the prices of wheat had ruled higher at St. Louis than at Chicago since the year 1848, and for the purpose of sustaining the views expressed in that article in regard to the course of trade in the West, we now avail ourselves of the following facts, which we extract from the Circular of the President of the board of Trustees of the Illinois and Michigan Canal, addressed to the subscribers to the loan of $1,600,000 for completing that work.

The President says:

"In reviewing the operations of the season of 1850, we shall find in an examination of the returns of articles transported on the Canal a very unexpected result, viz. that wheat and other breadstuffs, instead of passing through the Canal, from the Illinois river to Lake Michigan, have taken the opposite direction, and large quantities have been drawn from Michigan and even from points as far as Buffalo, for the supply of the St. Louis market, the prices there having been such as to create this unlooked-for diversion; a consequence of this has been to withdraw from the Illinois river articles of food, in large quantities, which ordinarily would seek a market eastward, via the Canal and the lakes.

"For example, between the opening of navigation and the 31st August, the wheat and grain which was shipped at Chicago for St. Louis was equal to 265,000 bushels, and the quantity arriving at Chicago, in the same time, less than 40,000 bushels. Again, the quantity cleared at La Salle, in 1850, was but 161,000 bushels against 290,000 in 1849. In the article of corn this is still more striking; the quantity cleared at La Salle, in 1850, was 104,000 bushels against 632,000 in 1849. This condition of the trade prevented boats from Chicago, with lumber, salt, and merchandise, down the Illinois river, from securing any return freight.

"In addition to this untoward circumstance, cholera made its appearance again; the water in the Illinois was unusually low from the middle of May to the middle of August; the interruption to the navigation at the busy season of the year by the breaks in the Canal, and finally, the uniform higher prices paid in Saint Louis for produce than in Chicago.

"Notwithstanding these serious drawbacks, the general result of the operations of the year exhibits a small increase in the revenue, of from 118,395 in 1849 to 125,504 in 1850, with the prospect that the business of 1851 will be more favorable than that of the past year."

It would seem from the language used by the author of the circular, that the projectors of the canal and those most interested in its operations, had never expected to see wheat and flour produced on the lakes, pass through it to the Mississippi river. Like the people of St. Louis, they supposed that the surplus bread-stuffs of the rich valley of the Illinois would all pass through the canal on its way to a market, and this was regarded, we believe, as one of the principal sources of its revenue. How far this "very unexpected result" will affect the utility and revenue of the canal, cannot be determined until the valley of the Mississippi becomes more thoroughly settled and its resources more fully developed. But it may be doubted whether the Illinois and Michigan canal will ever be used as a great thoroughfare for the transportation of breadstuffs in either direction. As a general rule a large portion of the surplus produced in the immediate vicinity of the lakes should go east, while that grown in the valley of the Illinois should go south, and consequently the transportation of grain on the canal will be confined, in a great measure, to that produced in the vicinity of the line.

The President of the Board of Trustees gives the following facts relating to the business of the canal since the year 1847:

"The aggregate number of miles passed by boats navigating the Canal in 1850, was 333,141, equivalent to 3,501 boats through the entire Canal.

"The aggregate number of miles travelled by passengers, was 2,967,384, equivalent to 30,910 passengers through the entire Canal.

"Taking some of the same articles transported on the canal in 1850, it will be seen where the increase is, and where the decrease in the articles enumerated has taken place, for example:

	1848.	1849.	1850.
Pork, barrels,	3,428	9,398	12,933
Salt, "	32,656	58,853	24,609
Sugar, pounds,	3,219,122	4,218,298	5,680,324
Merchandise, pounds,	4,948,000	9,176,943	10,372,623
Wheat, bushels,	454,111	579,598	417,036
Corn, "	516,230	754,288	317,674
Coal, tons,	5,416	7,579	3,361
Lumber, thousand feet,	15,425,357	26,882,000	38,687,528
Tolls received	$87,890	$118,375	$125,504

"The following table is extracted from the General Superintendent's report; it exhibits the cost of maintenance and repairs in each of the years 1848, 1849 and 1850: deducting from the gross sum for each year the cost of *extraordinary* repairs rendered necessary by freshets, value of tools and materials purchased and on hand, in each year, &c. The balance will show the sum properly chargeable to ordinary repairs.

	1848.	1849.	1850.
Total maintenance and repairs.....	$43,197	$70,922	$58,415
Deduct items enumerated above.....	6,744	26,999	19,996
Cost of ordinary repairs, ...	$36,452	$43,922	$34,418

Average cost per annum, of all expenses.....	$57,511
" " ordinary repairs,.....	38,264

The following statement furnished by the clerk in the collector's office at Lockport, shows the direction in which flour and other produce moved on the canal during the year 1850.

"The following statement taken from the abstract of articles arrived and cleared at the Collector's office, La Salle, shows as nearly as possible, the amount of the articles specified passing out of the Illinois river, but is not absolutely definite, as we cannot tell what proportion of articles cleared at that office came out of the river, that portion bought at La Salle for shipment on the canal being included, and on the other hand those articles which arrive, destined for points down the river are specified in connection with those which go no further than La Salle. It may be assumed however that by far the greater part of articles arrived go into the river and that a proportionate part of articles cleared came out of it.

	Arrived.	Cleared.
Flour, barrels,.....	29,997	419
Pork, "	472	9,620
Salt, "	20,838	1,042
Barley, bushels,.....	22,567	87
Corn, "	34,418	104,518
Oats, "	119,380	2,222
Wheat, "	117,793	159,097
Merchandise, pounds,.....	6,925,607	708,807
Coffee, "	33,171	109,783
Molasses, "	3,612	1,229,241
Sugar, "	19,994	5,376,646
Tobacco, "	42,684	262,819
Agricult'l. Implements, lbs.,..	798,980	26,655
Lumber, feet,.....	23,842,086	17,300
Siding, "	4,664,782	
Shingles, "	34,025,400	41,000
Lath, "	7,033,300	25,000

It is worthy of observation that while 29,997 barrels of flour moved South against 419 going North, 159,097 bushels of wheat moved North against 117,793 bushels going South. This would seem to imply that the facilities for manufacturing were greater in the region of the lakes than at St. Louis, but such we believe is

not the case. We infer therefore that this peculiarity in the movement of flour and grain was occasioned by the state of the Southern and Eastern markets at different seasons of the year.

COMMERCIAL STATISTICS.

We are indebted to the *Merchants' Magazine* for the following statement relating to our foreign commerce for the first six months of the current year.

The most startling item in the account is the large exportation of Specie, amounting to $19,093,515 against $2,453,732 during the same period of last year. This is a state of things which we have apprehended ever since the discovery of gold in California: that, instead of aiding in the development of our own resources, it would be absorbed by our foreign commerce and exported chiefly to Great Britain and serve to sustain and strengthen the agricultural, mining, and manufacturing interest of that country to the injury of our own.

The large increase in the importations of silk indicates an alarming propensity on the part of our people to indulge in luxury, instead of applying the profits of labor and commerce to more substantial purposes. What have we received in exchange for $19,000,000 in specie that has added to the solid wealth of the country? and what would it not have done for our own agricultural, mining, and manufacturing interests, if it had been permitted to remain at home?

These inquiries challenge the serious consideration of every American citizen. EDITORS.

Money, in all of our principal cities has been in better demand, and generally at rates above those current at the corresponding period of last year. Still, there has been no distress in mercantile circles for the want of funds, and the character and credit of business men, everywhere, have been unusually well sustained. We continue to receive a large amount of gold from California, the total for June exceeding that of May, as will be seen by the following statement of the deposits and coinage at the Philadelphia and New Orleans Mints:—

DEPOSITS FOR JUNE.

Gold from California	$480,408 60	$3,570,600
Gold from other sources	29,597 06	60,000
Silver	.....	11,700
Total	$510,005 66	$3,642,300

GOLD COINAGE FOR JUNE.

	New Orleans.		Philadelphia.	
	No. pieces.	Value.	No. pieces.	Value.
Double Eagles...	31,000	$620,000	130,515	$2,610,300 00
Eagles.....	37,000	370,000	12,127	121,270 00
Half Eagles.....	.....	.....	71,236	356,180 00
Quarter Eagles..	24,000	60,000	114,244	285,610 00
Dollars.....	40,000	40,000	279,888	279,888 00
SILVER COINAGE.				
Dollars.....	.....	.....	1,300	1,300 00
Half dollars.....	.....	.....	12,500	6,250 00
Quarter dollars..	.....	.....	16,000	4,000 00
Dimes.....	80,000	8,000	65,000	6,500 00
Half dimes.....	80,000	4,000	.....	.....
Three cent pieces	150,000	4,500	946,500	28,395 00
COPPRR COINAGE.				
Cents.....	.....	.....	1,016,517	10,165 17
Total coinage	442,000	$1,106,500	2,665,827	$3,709,858 17

The banks in the State of New York have been called upon to make up their quarterly returns, to the 21st of June; the following is a comparative summary of the statement of the city banks; the list of the country banks is not yet completed:—

CONDITION OF NEW YORK CITY BANKS AT THE DATE SPECIFIED.

	Loans & Disc'nts.	Specie.	Circulation.	Deposits.
17 Incorporated Banks....	$39.735.855	$5.793.229	$4.277.779	$23.849.499
20 Associated Banks.....	30.978.404	2.141.422	2.801.807	16.887.150
37 Banks, July 21' 1851....	$70.714.259	$7.934.651	$7.079.586	$40.736.649
31 Banks, March 29, 1851..	67.515.510	7.922.480	7.404.163	38.388.697
29 Banks, Dec. 21, 1850....	65.454.349	11.011.104	6.955.829	40.562.762
28 Banks, Sept. 28, 1850...	62.466.800	9.061.763	6.571.153	37.203.202
27 Banks, June 29, 1850....	59.878.038	10.753.682	5.919.863	35.861.139

From this statement it will be seen that during the last year the loans and discounts have not kept pace with the increase of capital and deposits, which is doubtless owing to the fact that the specie has fallen off nearly three millions.

The following is a condensed statement of the condition of the Bank of Tennessee and Branches, on 1st of July:—

Capital Stock.....	$2,248,300
Less amount owned by the bank.....	707,500
	$1,540,800
Deposits.....	493,518

Specie	652,322
Circulation	1,782,472
Discounts	1,513,322
Bills of exchange	723,048

At New York the Commerce for June has been very large. The imports, exclusive of specie, show an increase over June, 1850, of $2,739,924, of which $1,351,269 were general merchandise, and $1,388,655 were dry goods. The following is a comparison of the imports for June, in each of the years named:—

IMPORTS FOR JUNE AT THE PORT OF NEW YORK.

	1851.	1850.	1849.	1848.
Dutiable	$8,815,264	$6,229,205	$5,057,273	$4,718,404
Free	668,716	514,851	344,430	525,088
Total	$9,483,980	$6,744,056	$5,401,703	$5,243,492

The specie entered upon the manifest at the Custom-house was $121,234, from foreign countries; and $1,561,114 from California; but a much larger amount has been brought in private hands than usual, as will be seen by the deposits at the Philadelphia Mint, noticed elsewhere. We also annex a statement showing the total imports (exclusive of specie) at the port of New York, for six months, from the 1st of January, for several years.

IMPORTS AT NEW YORK FOR SIX MONTHS, ENDING JUNE 30.

	1851.	1850.	1849.	1848.
Dutiable	$64,099,534	$51,097,016	$40,665,025	$41,087,963
Free	5,137,644	5,461,842	4,826,908	5,106,273
Total	$69,237,178	$56,558,858	$45,491,933	$46,194,236

This shows an increase for the past six months, over the corresponding period of the previous year, of $12,678,220, of which $4,763,845 were in dry goods. The following statements will show the comparative imports of dry goods for June, and also for the first six months of the current year:—

DRY GOODS ENTERED FOR CONSUMPTION AT NEW YORK DURING THE MONTH OF JUNE.

	1351.	1850.	1849.
Manufactures of wool	$1,068,752	$596,170	$474,237
Manufactures of cotton	428,923	389,551	376,450
Manufactures of silk	1,512,986	835,351	454,577
Manufactures of flax	244,949	215,398	158,000
Miscellaneous dry goods	176,670	72,100	151,737
Total	$3,432,280	$2,108,570	$1,615,001

WITHDRAWN FROM WAREHOUSE DURING THE SAME PERIOD.

	1851.	1850.	1849.
Manufactures of wool.....	$103,444	$62,594	$33,775
Manufactures of cotton....	29,446	40,555	15,417
Manufactures of silk.....	72,562	50,284	33,818
Manufactures of flax.....	17,245	31,440	21,750
Miscellaneous dry goods...	19,045	1,924	8.076
Total.....	$251,742	$186,797	$113,836
Add, entered for consump'n	3,432,280	2,108,570	1,615,001
Total thrown upon market	$3,684,022	$2,295,367	$1,728,837

ENTERED FOR WAREHOUSING DURING THE SAME PERIOD.

	1851.	1850.	1849.
Manufactures of wool.....	$234,916	$239,268	$152,176
Manufactures of cotton....	144,811	137,356	219,532
Manufactures of silk.....	109,085	76,091	41,257
Manufactures of flax.....	23,100	80,590	46,968
Miscellaneous dry goods...	12,345	4,521	38,258
Total.....	$524,257	$537,826	$498,198

DESCRIPTION OF DRY GOODS THROWN UPON THE MARKET AT NEW YORK, FOR SIX MONTHS, ENDING JUNE 30.

	1851.	1850.	Increase.	Decrease.
Manufactures of wool.....	$7.159.708	$6.750.077	$409.631	.....
Manufactures of cotton.....	6.635.864	6.570.849	65.015	.....
Manufactures of silk.....	12.402.709	8.425.426	3.977.283	.....
Manufactures of flax.....	3.895.684	4.660.202	.....	$764.518
Miscellaneous dry goods....	2.159.283	1.082.849	1.076.434	.....
Total.....	$32.353.248	$27.489.403	$5.528.363	$764.518
			764.518	
Total increase in six months.....			$4.763.845	

The increase, it will be seen, as we noticed in our previous issue, to be chiefly in silk goods; which shows, that while our people are indulging more in luxuries, they are importing little more than last year of any articles which compete with our own manufactures. The increase in June, as recorded above, is chiefly owing to the earlier period at which goods are arriving, a fact to which our ocean steamers are largely contributing.

The exports from New York, for June, figure largely in the item of specie, but in domestic produce show a trifling falling off, in comparison with last year, as will be seen by the annexed statement:—

EXPORTS FROM NEW YORK FOR THE MONTH OF JUNE.

	1851.	1850.	1849.	1848.
Domestic produce	$3,778,289	$3,971,207	$3,317,740	$2,235,844
Foreign produce..	321,725	494,380	445,892	159,230
Specie.....	6,462,367	880,434	596,411	1,971,915
Total.....	$10,562,381	$5,346,021	$4,360,043	$4,366,989

For six months, however, the increase, not only in the aggregate, but also in the item of domestic produce has been very considerable.

EXPORTS FROM NEW YORK FOR SIX MONTHS, ENDING JUNE 30.

	1851.	1850.	1849.
Domestic produce.....	$22,456,839	$18,916,873	$15,991,967
Foreign produce.....	2,353,087	2,424,877	2,179,577
Specie.....	19,093,515	2,453,732	1,371,957
Total.....	$42,903,441	$23,795,482	$19,533,501

This shows an increase for the first half of the current year, of $20,107,959, of which $3,539,966 was in domestic produce, and $17,639,783 in specie.

The following is a statement of the amount of duties collected at the principal ports in the United States, for the year ending June 30, 1851:

New York.....	$31,757,199	St. Louis.....	$213,832
Boston.....	6,577,540	Cincinnati.....	105,191
Philadelphia.....	3,667,838	New Haven.....	102,139
Baltimore.....	1,047,278	Mobile.....	76,184
New Orleans.....	2,296,636	Louisville.....	66,572
Charleston.....	600,712	Oswego.....	91,557
Portland.....	209,030	Richmond.....	70,235
Savannah.....	208,994		

The imports at most of the ports show no important variation from the corresponding period of last year, as the increased receipts of foreign goods have been entered almost exclusively at the port of New York. The importations for June show a falling off in almost every description of merchandise, and there is every reason to suppose that the outgoings of specie from the country, will soon be brought down to a limit which will not alarm the most timid. In the midst of all the increased demand for money, there has been no difficulty in negociating large amounts in bonds. Within a few days, John Thompson, Esq., of New York, for himself and friends, has taken the whole two and a half millions of the new Virginia 6 per cent. Loan, thirty-six years to run, at 103 per cent.; this is considered very favorable for the State.

COMMERCE OF ALTON, ILL.

The following table, which we find in the Alton Telegraph, shows the kind of commodities exported from that point. The Amount is quite respectable, considering the derangement of business occasioned by the flood.

We should be pleased to obtain a complete statement of the industrial snd commercial statistics of that enterprising city.

EXPORTS OF ALTON, FOR MAY AND JUNE, 1851.

The following table of exports for the months of May and June is as perfect as we could make it. There are doubtless some omissions, on account of the general derangement consequent upon the flood; and to this cause may be assigned a very considerable falling off in some of the principal articles:

Barrels of flour	3,315	Bales of Hay	847
" Whisky	904	" Hackled Hemp.	47
" Lard	14	Yards of Bagging	15,170
" Tallow	32	Pounds of Rope	75,375
" Castor Oil	34	" Wool	5,900
" Lime	3,176	Dry Hides	508
" Butter	22	Bdls. green Hides	129
" Eggs	26	Boxes Specie	2
" Beeswax	3	Jars Butter	74
Hhds. of Bacon	76	Cakes Cheese	74
Tierces Grease	14	Canvassed Hams	999
Sacks of Wheat	68	Shingles	177,000
" Corn	1,017	Waggons	23
" Oats	1,323	Carriages	2
" Bran	581	Oil Barrels	765
" Feathers	9	Kegs	212
" Barley	61	Half Barrels	185
" Castor Beans	112		

Estimated value of above	$60,022
Other produce not included	3,000
42 Thrashing Machines at $300	12,600
5 Steam Engines	2,400
Other manufactured articles	3,000
	$81,022

LIVE STOCK.

910 Head of Beef Cattle	$27,300
960 " Hogs	6,720
2,180 " Sheep	3,815
17 " Fine Horses	1,700
	$120,557

[From Cist's Advertiser.]

ELEMENTS OF CINCINNATI POPULATION.

The recent census gives the population of Cincinnati, classified into natives of the United States and foreigners, as follows:

NATIVITIES—UNITED STATES.

Ohio,	33258	Mississippi,	201
Pennsylvania,	5005	North Carolina,	178
New York,	3331	Illinois,	166
Virginia,	2370	Rhode Island,	147
Kentucky,	2223	District of Columbia	138
Maryland,	1663	South Carolina,	131
New Jersey	1556	Georgia,	128
Indiana,	1256	Missouri,	107
Massachusetts,	1166	Michigan,	97
Connecticut,	500	Alabama,	63
Louisiana,	406	Arkansas,	32
Vermont,	316	Iowa,	28
Maine,	255	Texas,	10
Tennessee,	251	Wisconsin,	8
Delaware,	220	Florida,	1
New Hampshire,	217		
			55,468

NATIVITIES—FOREIGNERS.

Germany,	30628	Russia,	12
Ireland,	13616	Norway,	11
England,	3960	Spain,	10
France,	820	Isle of Jersey,	7
Scotland,	771	" Man,	6
Wales,	444	Greece,	5
Canada,	338	Brazil,	4
Italy,	171	Africa,	4
Switzerland,	154	Portugal,	3
Prussia,	130	New Brunswick,	2
Holland,	94	China,	2
Poland,	77	Guatemala,	2
At Sea,	38	Isle of Wight,	2
Nova Scotia,	29	" Guernsey,	1
West Indies,	27	" France,	1
Sweden,	20	Newfoundland,	1
Denmark,	10	Turkey,	1
Belgium,	16	Australia,	1
Mexico,	15		
			51,171

Unknown, principally natives of the United States, ... 8,799

TABLES OF POSTAGES WITHIN THE UNITED STATES, AND TO CANADA AND OTHER BRITISH NORTH AMERICAN PROVINCES.

Rates of Letter Postage between Offices in the United States, and to and from Canada and the other British North American Provinces, from and after the 30th June, 1851.

DIRECTIONS.	WHEN PREPAID.					WHEN UNPAID.				
For every single letter in manuscript or paper of any kind upon which information shall be asked or communicated in writing, or by marks or signs sent by mail, the rates mentioned in this table shall be charged; and for every additional half ounce or fraction of an ounce above the weight named in this table, an additional single rate is to be charged.	Weighing ½ ounce or under, being the single rate.	Over ½ ounce, and not over 1 ounce.	Over 1 ounce, and not over 1½ ounce.	Over 1½ ounce, and not over 2 ounces.	Over 2 ounces, and not over 2½ ounces.	Weighing ½ ounce or under, being the single rate.	Over ½ ounce, and not over 1 ounce.	Over 1 ounce, and not over 1½ ounce.	Over 1½ ounce, and not over 2 ounces.	Over 2 ounces, and not over 2½ ounces.
	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
For any distance not over 3,000 miles.....	3	6	9	12	15	5	10	15	20	25
For any distance over 3,000 miles,.....	6	12	18	24	30	10	20	30	40	50
To and from British North American Provinces, for any distance not over 3,000 miles,	10	20	30	40	50	10	20	30	40	50
For any distance over 3,000 miles,.....	15	30	45	60	75	15	30	45	60	75

Note.—From and after the 30th June, 1851, the mode of computing the rates upon inland letters—i. e. letters from one office within the United States or Territories to another, and also upon letters between the United States and the British North American provinces—is to be as follows, to wit: Single rate, if not exceeding half an ounce; double rate, if exceeding half an ounce, but not exceeding an ounce; treble rate, if exceeding an ounce, but not exceeding an ounce and a half; and so on, charging an additional rate for every additional half ounce or fraction of half an ounce.

The mode of computing rates upon letters to Great Britain, and to all other foreign countries, the British North American provinces excepted, will remain as at present, under the act of 3d March, 1849, and agreeably to instructions appended to the table of foreign postages.

DIRECTIONS.

1.—Every letter or parcel, not exceeding half an ounce in weight, shall be deemed a single letter or rate.

2d.—All drop-letters, or letters placed in any post office, not for transmission, but for delivery only, shall be charged with postage at the rate of one cent each.

3d.—Each deputy-postmaster, whose compensation for the last preceding fiscal year (ending the 30th June) did not exceed $200, may send through the mail all letters *written by himself*, and receive through the mail all written communications addressed to himself, *on his private business*, which shall not exceed in weight one half ounce, free of postage. This does not authorize them to frank any letters unless written by themselves, and on their private business only; nor does it authorize them to receive free of postage any thing but written communications addressed to themselves, and on their private business.

NEWSPAPER RATES *per quarter, when sent from the office of publication, to actual and bona fide subscribers, from and after* 30*th June*, 1851.

From and after the 30th of June, 1851, for each newspaper, not exceeding three ounces in weight, the annexed rates per quarter are to be paid quarterly in advance at the office where they are delivered to the subscribers. These rates only apply where the paper is sent from the office of publication to actual and *bona fide* subscribers.	Daily.	Tri-weekly.	Semi-weekly.	Weekly.	Semi-monthly.	Monthly.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
For any distance not exceeding 50 miles,.....	25	15	10	5	2½	1¼
Over 50, and not exceeding 300,.....	50	30	20	10	5	2½
" 300 " 1,000,.....	75	45	30	15	7½	3¾
" 1,000 " 2,000,.....	100	60	40	20	10	5
" 2,000 " 4,000,.....	125	75	50	25	12½	6¼
" 4,000.....	150	90	60	30	15	7½

DIRECTIONS.

1st.—*Weekly papers only*, when sent as above stated, are to be delivered free in the county where they are published; and this although conveyed in the mail over 50 miles.

2d.—Newspapers containing not over 300 square inches are to be charged one quarter the above rates.

3d.—Publishers of newspapers are allowed to exchange free of postage one copy of each number only; and this privilege extends to newsapers published in the British North American provinces.

4th.—The weight of newspapers must be taken or determined when they are in a dry state.

5th.—Postmasters are not entitled to receive newspapers free of postage under their franking privilege.

6th.—Payment in advance does not entitle the party paying to any deduction from the above rates.

7th.—Postmasters are not authorized to frank letters to publishers containing money to pay subscriptions, nor are they authorized to frank any letters written by others on their own business or written by them on the business of others. Postmasters at the office of delivery will disregard the frank of another postmaster, and charge postage where it is clear the letter contains money or printed matter; or for any other reason, should not have been franked. Postmasters whose commissions for the preceding fiscal year exceeded $200 have no franking privilege.

8th.—Newspapers *exceeding three ounces in weight*, are to be rated and charged *by weight*, according to the next table. If published quarterly or oftener, and sent from the office of publication to actual and bona fide subscribers, the postage thereon need not be prepaid.

9th.—Where postage is required to be "*prepaid*," it is to be paid at the mailing office when the matter on which it is charged is received for mailing.

RATES OF POSTAGE *to be charged, from and after the* 30*th June*, 1851, *upon all transient Newspapers and every other description of Printed Matter, except Newspapers and Periodicals published at intervals not exceeding three months, and sent from the office of publication, to actual and bona fide subscribers.*

Note.—For each additional ounce, or fractional part of an ounce, beyond the ten ounces embraced in this table, an additional rate must be charged.	Weighing 1 ounce or under.	Over 1 ounce and not over 2 ounces.	Over 2 ounces and not over 3 ounces.	Over 3 ounces and not over 4 ounces.	Over 4 ounces and not over 5 ounces.	Over 5 ounces and not over 6 ounces.	Over 6 ounces and not over 7 ounces.	Over 7 ounces and not over 8 ounces.	Over 8 ounces and not over 9 ounces.	Over 9 ounces and not over 10 ounces.
	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.	Rate.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
When sent not over 500 miles.....	1	2	3	4	5	6	7	8	9	10
Over 500 and not over 1,500.....	2	4	6	8	10	12	14	16	18	20
Over 1,500 and not over 2,500.....	3	6	9	12	15	18	21	24	27	30
Over 2,500 and not over 3,500.....	4	8	12	16	20	24	28	32	36	40
Over 3,000 miles,.....	5	10	15	20	25	30	35	40	45	50

DIRECTIONS.

1.—On every transient newspaper, unsealed circular, handbill, engraving, pamphlet, periodical, magazine, book and every other description of printed matter, the above rates must in all cases be prepaid, according to the weight.

2.—Whenever any printed matter on which the postage is required to be prepaid, shall, through the inattention of Postmasters, or otherwise, be sent without prepayment, the same shall be charged with double the above rates.

3d.—Bound books and parcels of printed matter, not weighing over 32 ounces, shall be deemed mailable matter.

Periodicals published at intervals, not exceeding three months, and sent from the office of publication to actual and bona fide subscribers, are to be charged with one-half the rates mentioned in the last above table, and a quarter's postage thereon must in all cases be required to be paid in advance. Periodicals published at intervals of more than three months, are charged with the full rate, which must be prepaid at the office where they are mailed.

Note.—In case there is on or in any newspaper, periodical, pamphlet, or other printed matter or paper connected therewith, any manuscript of any kind by which information shall be asked for, or communicated in writing, or by marks or signs, the said newspaper, periodical, pamphlet, or other printed matter, becomes subject to letter postage; and it is the duty of the Postmaster to remove the wrappers and envelopes from all printed matter and pamphlets not charged with letter postage, for the purpose of ascertaining whether there is upon or connected with any such printed matter, or in such package, any matter or thing which would authorize or require the charge of a higher rate of postage thereon.

N. K. HALL, *Postmaster General.*

Post Office Department, June 14, 1851.

THOUGHTS UPON AMERICAN LITERATURE.

[For the Western Journal.]

While perusing not long since an extract from an old Edinburgh Review, our attention was arrested more forcibly than ever before, by a sentence from that most humorsome of English divines, Sidney Smith, in which he sums up our American literature as embraced "in a few poems by one Dwight, whose baptismal name was Timothy, and an epic by John Barlow." And we have thought it might not be either entirely useless or uninteresting, to give expression to a few thoughts, which the witicism naturally awakened in our minds, relative to the true character of our literature. While we would seek to place an impartial estimate upon our intellectual refinement and growth, we would as carefully avoid an excessively eulogistic tone, which has been too frequently the legitimate theme of foreign ridicule.

Yet, the glorification of "Jonathan" over his wondrous childhood and the precocity of his genius, is becoming rather a stale joke with our staid transatlantic brethren—and the exaggerated tone of depreciation, which is indicated by the ridicule of Sidney Smith is fast dying away, as our nations are being united together by an unseen, immaterial woof of sympathies, which is woven out of the rapid flow and reflow of thought, sentiment and emotion.

Still the sarcasm of the English divine is but too true an index of the injustice with which foreign critics have ever been ready to treat our intellectual efforts. Instead of the genial teachings, which a more cultivated taste and a larger experience might have imparted, they have seemed, too often, only intent upon depressing the young energies that were just reaching out for strength and support—as though, instead of nurturing the germ that had fallen upon a virgin soil, they would blast its fragrance and freshness as it grew up into the sunlight and dew.

But if these stern teachings shall, in the end, have their influence, in making us self-reliant, free and national in our literature, it will have been of infinitely more advantage to us, than to have been a kindly nurtured scion, feeble, dependent, and drawing life from a foreign stem. The legitimate influence of depreciation from abroad should be, to make us cherish, with a warmer sympathy, the genius that develops itself amid our own institutions ; leading us to strive too, in fuller faith, to adorn our national life with still higher triumphs of taste, philosophy, and poetry. Whatever may be the injustice done by others to our first and more uncultivated efforts, we cannot but feel hopeful of the future, when Bryant has shed the delicate glow of his exquisite imagination over all the beauties of

the material world around us—when Whittier, in his earnest, soul-stirring songs, calls the worn and weary back again, with gladdened hearts, to resume the tasks he has dignified by the grace and elevation of his sentiment—or when Prescott has almost, for the first time, inwrought the dry details of history with the fascination of romance.

Yet with the many vigorous and energetic writers upon almost every subject, with the many true poets, spirits who have taken the beautiful and ideal that ever tinge our real practical life, and poured over them the glow and ardor of their own intensity of feeling—even with historians of such graphic powers as Prescott or Irving, still, is it not a question admitting of much doubt, whether we have as yet a literature, which may be called distinctively national, either in its amount or characteristics? Let our history, as a nation, cease at this point of our existence, and let the future look back upon the current of our thought and sentiment, and it would seem but as a stream, that had wandered from the far, broad flow of English literature, only to return to its parent source again, slightly tinged by the different strata over which it had passed.

While endeavoring to indicate some of the deficiencies of our literature, let us not be deemed unpatriotic, or wanting in appreciation of the pure taste and intellectual culture we have already attained, at so early a period of our national life. The popular exultation over success, in every department of our physical or mental effort, is frequently as unjust and exaggerated as the tone of depreciation that greets us from abroad, and perhaps even more dangerous to a high and rapid development of the native powers we possess. For satisfaction and faith in the fulness and perfection of present attainments, stagnates and deadens human effort more than an unmerited contempt, which, while it may beget a healthful distrust, nerves the spirit to win a loftier eminence, where even detraction cannot assail it. The sense of incompleteness must ever precede perfection.

A feeling of the want of the beautiful, as truly as the transient, fleeting visions of its possession, win the Artist on in a life-long struggle for its attainment. As certainly as individuals, must a nation know its intellectual wants, to create that vast, thousand-hued fabric which constitutes a national literature. Yet, to judge from the tone of some writers, we should be almost led to think, that we had already, in the brief years of our history, reared this many columned temple, symmetrical and complete in all its parts, its broad, firm base, its decorated capital, when for other nations it has been the slow growth of centuries.

There are some departments of literature, in which, with us, as yet, scarcely an intellectual laborer has entered. And we do not mention this to mark our mental indolence, but rather to indicate some of the uncultivated fields, from which there may yet be reaped a golden fruitage. Our scholars have not, as yet, traced for them-

selves, the rich veins of knowledge that gleam amid the relics of ancient science. Philosophy and criticism have scarcely been made to lend their influence in illustrating and illuminating the characteristics of our thought and expression, by a comparison with that of the past. The richness and fulness, as well as the relation of our own language to those from which it has sprung, are taught us by others. And is it not true, that from others we must, as yet, take the interpretation of much of ancient poetry and philosophy?

The profound scholarship, which is indicated by a life's devotion to such abstruse and refined investigations as the science and history of language, is not yet ours, for we have not as yet had the time to acquire it. Though we believe there is an absolute value in such investigations, of themselves, yet it is not so much in this light that we would now view them, as in the spirit of study and mental power that they betoken.

To give our literature a depth and fulness and proportion, there must be much of that Teutonic endurance, that can abide its time, and if it may be, devote a life to the analysis of a single subject, or a volume to a single word or particle, in order to develop the extent and intimacy of its relations. There must be more of this spirit of study, before our literature shall seem to be growing up within ourselves. For if we would have the thought and sentiment that constitute literature, and from their characteristics, make it national, there must be a growth from a centre, and not a mere increase and enlargement of volume by external, outward additions. It indicates a power of creation. It is like a gushing fountain, welling up from an inward source, bringing the gold and diamond, and not a stream which flows past us, floating argosys of wealth from afar. And it is in not recognizing this principle, if any, that we shall err in our intellectual efforts as a people—in a mental impetuosity and eagerness for results, without the patience and calmness necessary to prepare the means for their attainment. There is liable to be a want of that deep and thorough inquiry, that laborious scholarship, which must hew and sink the corner stones, and fit the cross-work of thousand unseen supports, ere the carving and graceful tracery can be reared to give the edifice its embellishment.

But, as we have just said, there is as yet in our mental, as well as in our physical exertions, an impulsive eagerness to attain that, which shall be, at once, tangible, and, in its results, immediate. When we shall see our own scholarship, a crucible of the intellectual treasures of other and ancient nations—leaving its own impress upon the forms of thought, which, in the transmutation, have received a trace of its own identity, then we shall feel, that, within ourselves there was a depth of knowledge, and a growth of mental strength, that would soon emancipate us from the tutelage of others, and enable us to give a mould and form to thought, as characteristic and original as that of other nations. With respect

to the subject we have mentioned, we are, as it were, but metallic reflectors, and so we must continue, until we can have the opportunity for, and what is more essential, fully estimate the value of that spirit of study, which shall devote the power of a clear and strong analysis to investigations, abstruse and delicate and unapparent, and, therefore, to our practical mind, useless. For we cannot symyathise with that utilitarian spirit, which decries, as valueless, the labor of a life, devoted to the more minute and hidden departments of science or philosophy. They are as essential to the unity and perfection of a national fabric of thought, as those thousand delicate touches which, though lost in the entire effect, yet, if forgotten, would at once mar the beauty and completeness of the artists creation; or they are like the individual atoms, which are silently evolved, and, noiselessly gravitating to a centre, give to the crystal its many-sided beauty.

There is still another department, the drama, which, with us, can not be said to have received any cultivation. And yet it is the drama, if any one portion of literature, that takes the complex hue and form of a nation's sentiment and distinctive characteristics. It is like a fluid, that, solidified over all the forms of society, when removed, bears the impress of all its elevations and depressions and angularities, as well as its curves of beauty and delicate proportion. Wherever there has arisen a national literature, one of its distinguishing features has been that of its drama. The noble old Greek tragedians wrought out into grand and massive forms, the bold and striking periods of their national history, and the strange imaginative creations of their poetic mythology, peopling stream and glen and mountain peak with unseen forms of ideal beauty or terror. The dark, superstitious, and chivalrous character of the Spaniard—the gay frivolity and voluptuousness of the Gaul—the deep, shadowy mysticism of the German, are each embodied in those forms of thought through which the Drama has sought an expression of national sentiment and emotion, of life, both intellectual and physical. While the surpassing genius of the English dramatists has reared the stateliest, most enduring column in the rich and varied literature of that nation, blending the deepest philosophy of human nature—the most delicate shading of character—the rarest delineation of tender and purified emotion, with the infinitely changing, but sternly practical events of our each day life.

When we see so striking an element in the intellectual histories of different nations wanting in our own literature, there cannot but arise a sense of its deficiency. We must feel as though there was not yet that fulness, completeness and nationality in the expression of our universal ideas, which we might attain. For literature is, to us, like a many-sided dome, reflecting from its varied angles all the shades and tints of life that may fall upon it. Ours is not yet complete, and there are emotions and idiosyncracies of

thought and sentiment that are radiating, like lines of light, from the vast mind of the people, that are lost, for there is no appropriate medium from which to reflect them. A literature cannot be complete, until it can, at least, give expression to the varied ideas and multifold intellectual tendencies that mark the national mind. And as thought itself is thousand-fold and changeable, it cannot be that all its bold, marked outlines, can be truly represented by any single, unvarying mould. Neither history, nor philosophy, nor science, shall give adequate expression to all the depth and dissimilarity there is in the thought of any nation. There are its fancy and imagination, which must be shaped into forms of more delicate and airy proportion.

We have thus far directed attention to what seem absolute deficiencies in our literature. We will not say that a nation's literature depends upon its quantity, rather than its elevation, refinement and sympathy with the peculiarities of a people, or an age, but we would turn the thought, for a single moment, to the comparative meagreness of results there is, even in those fields of intellectual labor, in which our writers have scarcely more than wandered. Though they have done nobly in beautifying the forest amid which they have fallen, adorning the rugged slopes, embellishing the desert, nurturing many a wild flower on hillside and in glen, till its loneliness and fragrance surpasses the rarest exotic; yet, how much greater and fuller must be the efforts of our genius, in harmonizing and developing the exhaustless resources, which it is its privilege to shape into noble forms of symmetry and perfection.

Though we have poets, who have sung most divinely and truly, delineating the loveliness and grandeur of the material universe with a fervour of inspiration that has shed a thousand before unseen beauties around our pathway through this world—philosophers who have briefly, but boldly analysed the powers and tendencies of the human soul—scholars, who have traced the strata and metal arteries of our mountains, and recorded the phenomena of our heavens, yet, in comparison with the immortal poems, and full, far reaching scientific investigations of some other nations, do their labors indeed seem like polished fragments of a towering column, rather than the column itself, or, may we not truly and hopefully say, they are but the up-thrown pillars and shafts of light from the far-coming sun. There have not yet arisen, within our midst, those over-shadowing minds, which give a shape and destiny to the whole intellectual effort of the era and nation, in which they live. Who seem to have taken, within their grasp, all the countless and aimless tendencies of the age, and then given them forth again, with a distinctness, freshness, fulness and fervor, that make the results of their labors imperishable monuments;—almost creating a literature from the very boundlessness of their own exhaustless resources. We have not yet a Milton or Shakespear, who have,

as it were, suffused the mind of the nation with the intense glow of their own intellects. In the light of these contrasts, our literary efforts seem but as scattered unhewn beams and blocks of marble yet to be grouped into the grand and beautiful structure. The defects of our literature are those, which are incident to the brief period through which it has existed. Its deficiencies are those which we feel come from the want of original, creative energy.

It does not give us the impression of an inward, self-evolving power. There is not that freedom, independence and self-reliance in our intellectual, that there is in our physical labors. How few of our popular writers have trusted to the peculiarities of our national life and scenery for their inspiration. Our busy, practical, utilitarian existence, they have seemed to feel, has but little of the tinge of romance or fiction. They have rather sought the storied scenes of the elder world, where cluster reminiscences, shadowy and indistinct with time and distance, giving fuller and freer play to the fancy. Our most popular and truly literary writer, Irving, is not truly national. The choicest efforts of his genius have thrown an enchantment and fascination around scenes that are far removed from our own life. His genial fancy, and rich, delicate humor have brought us the rarest pictures of English life, its stateliness and urbanity, aristocratic pride and polish; but he has not seized upon the thousand salient points of our own national character and wrought out, as he might, home-likenesses, to be forever treasured in our literature. Are not his sketchings of the romantic and chivalrous era of Spanish life and warfare remembered, rather than the attempts he has made to shed the glow of his inimitable descriptive powers over the thrilling scenes of our own brief history? We seem to have shadows and reflections from foreign scenes of beauty or grandeur, while the magnificence and loveliness of our own are forgotton as stale and insipid.

A national writer and a national literature, should catch the thousand fleeting shades of interest, that play over the features of our character as a people, and weave them into the woof of song or story. There are these sources of interest, and even of romance, in our early history. And we cannot but be thankful to Hawthorn, that he has sought them out; and in tracing them, has trusted himself to be almost among the first of our writers, as we think, truly national. He has seen the elements of beautiful fictions in the early life of our New England forefathers. With delicate perception he discovers many tinges of romance and much of the food of fancy in the old, mysterious tales, that begin to cluster, like strange, traditionary stories, around the moss-grown, century-old gables of New England. He finds a rich depth of coloring in the stern, old Puritan character. He carves out boldly their rugged integrity, their uncompromising sense of duty, and few are the milder shades of gentler virtues with which he can soften the sharply cut outline. Yet, we feel, at once, that he has

caught and embodied the very spirit of Puritan life—there is in it that which we realize as truly American and national. Happily, too, does he call our thoughts to the scenery that is around us, and shows us, that beauty and grandeur dwell within our shores and along our mountain ranges as well as elsewhere. He sees, indeed, no Alp or castellated Rhine or beetling cliff, crowned with the broken, massive architecture of the ancient time, nor need he to be inspired, for there is still the hight of his own granite cliffs, the silver light of winding stream and the music of falling water, and the sabbath rest of the mountain lake, gleaming like a gem in its setting of deep pine wood, and along the narrow, grass-grown dell, many an old, decaying New England home, where, perchance, a less poetical, but a more genial, beautiful life has lived its century, than in the giant castles of the elder world.

Our literature is national in one, but not the highest sense. We think it might be called national in its form, but not in its essence. In a free democratic country, where there was perfect liberty to think, and give expression to thought, we should anticipate a peculiar and unwonted activity of mental research—that almost every subject should receive a bold, but, perchance, a superficial investigation. And thus it is, that there is, with us, an intense mental activity—an agitation of almost every theme—an impetuosity that is ceaseless. There is no stagnation, but the quick, life-like play of small waves upon a sea, rather than the full, mountain swell of waters upon the far out ocean. This is the distinctive trait of our literature, and it seems to us about the only nationality that it has. The vesture of our ideas, as it might be called, is woven out of the peculiarities of our character and institutions, while to be truly national, our literature, the thought and sentiment itself, should glow through and through with the tendencies of the time—should mirror the spirit that pervades our present existence. There must be an embodiment of sentiments and traits peculiarly American. The mountain song of the Tyrolese, or the floating melody of the Venitian gondolier, have more nationality, than much of our poetry.

We must have more writers of the same character as Hawthorn, geniuses, greater and mightier, it is true, but imbued with the same spirit, who shall sympathize with the scenes and events of our own history, collecting the scattered beams of light, the peculiarities and individualities that belong to us as a people, and make them luminous by concentration. We well know that we are in a formation state as a nation. That the influences brought to bear upon us from abroad are so multifold and various, that we can scarcely take an individual character. Yet, even with these disuniting forces, we do not think our literature possesses the individuality and distinctness of our national life.

We have thus sought to indicate, what appear to us a few of the deficiencies of our literature, and, as we have before said, not in the spirit of depreciation, but, if possible, to direct the attention

to the extent of the intellectual effort that yet awaits us—to turn the eye to fields where the harvest has not come to its great and golden fruitage—and to beget, perchance, a distrust in the completeness and sufficiency of our present success, and a looking forward to fuller and nobler developments. For the intellectual vigor and refinement we have already attained as a nation, may indeed make us hopeful of the future. It is with us, as yet, the working age, and as a nation of laborers, we have been thrown into a newly found wilderness world, to fell its forests, tunnel its mountain ranges, and till gardens of beauty amid its deserts. And this mission we have been and are accomplishing with a ceaseless physical activity. With this restless, mental energy, there has been nurtured a shrewd, practical, available mental discipline, that is strong and elastic in the highest degree. Yet this is but the rugged, fresh-quarried marble block of character, which is yet to receive its polish and delicate carving. As yet, we are more interested in building our homes, in tracing our roads through the deep woods;—in weaving the vesture for the body, than in creating that intangible, spiritual raiment of the mind, whose texture is philosophy and refined imaginings. As in individual, so in national life, its first wants are the grosser, and until these are satisfied, there can be but little devotion to the cravings of the spirit, which are those of thought and fancy. And yet, in the intensely practical, working life of ours, there are many aspirations after this higher, intellectual existence. The refining and elevating influences of philosophy, science and poetry are softening and purifying the harsher and ruder traits of our utilitarian being—like the tendrils of ivy, they are beginning to clasp and cling to the rugged points of our national character, and will more and more throw a drapery of beauty and ever freshening foliage over its projections and angularities.

Though we have said our literature was not, as yet, distinctively national, it might be a subject of most interesting inquiry, how far it shall stand out separte and individual. It can be more national, as being more peculiarly American in its sympathies and in the more extended scope of its scientific investigations, but how far shall its developments be different from that nation of Europe, to whom we are peculiarly united by the ties of descent, faith, interest and language. It cannot be so distinct as the literature of nations, who have existed for centuries with their own diversities of custom, religion and language, throwing up walls of separation around them. But we believe our literature shall not differ from that, from which it has most directly taken its coloring, so much in its characteristics (though even there greatly, on account of the democratic influences amid which it is nurtured) as in its variety, comprehension and universality. Possibly we may not create a sublimer poetry than is before us, or produce a nobler drama than adorns English literature. But from the universality of in-

telligence, the tireless mental activity, and the chainless freedom of expression we possess as a people, we believe our literature will be peculiarly the embodiment of the sentiment and thought of the nation, the resultant of all its thousand-fold activities and tendencies. And though the peculiarities of English literature, which are inseparably moulded by the English language, shall give the ultimate form and complexion, yet we cannot but believe, that within our ocean-bound circumference there shall be built a fabric of national thought, greater and mightier than ever was before—gathering to itself the varied intellectual influences, that flow in upon us from every latitude and longitude of the globe—interweaving the Celtic vivacity, the Teutonic mysticism, and English force and depth of reason, evolving from this diversity, a higher perfection in every department. And, finally, that whatever may be the extent or variety of our poetical creations, or the depth of our philosophy, we believe the distinguishing feature of our literature will be an embodiment of the practical and useful, just as that of the German gives an expression to the speculative and the ideal and as that of the Greek was consecrated to the beautiful.

F. S. G.

GOETHE

OF HIMSELF IN HIS OLD AGE.

I have never known a man more presumptuous than myself, and because I say so, it is manifest that what I say is true.

I never believed I would attain to anything, I always thought that I had it already. Once upon a time I was about to be crowned, and I thought it was not necessary, the thing was understood. And yet I was therein only just like any other man. But because I labored to work my way through a condition beyond the apprehension of my powers, to merit something beyond the preservation of my merit, in that respect only did I differ from a real mad-man.

At first I was unfit for men on account of my ideas, afterwards on account of my earnestness. Place myself as I would, I was alone.

SHAKSPEARE EVERLASTING.

III.

SHAKSPEARE AS DRAMATIC POET.

1816.

FROM THE GERMAN OF GOETHE.

When friends and lovers of art desire to be pleased with uncommon gratification at any work, they penetrate themselves with the unity, and enjoy within themselves the fulness, which the artist was enabled to produce. On the contrary, he who speaks theoretically about such a work, may maintain something in regard to it and may therefore teach and advise, but he does not fulfil his duty. This we hoped to fulfil while we contemplated Shakspeare first as a poet in general and then in comparison with the ancients and moderns. But now we will conclude our essay while we are contemplating him as a dramatic poet.

Shakspeare's name and merit belong to the history of poesy; but it is an injustice to all dramatic poets of the earlier and of the later times to represent their entire merit in the history of the drama.

An universally acknowledged genius can by his abilities establish a fashion which is problematical. The excellent works he produces are not always finished in the most excellent style. Therefore Shakspeare necessarily belongs to the history of poesy; he enters only accidentally into the history of the drama. While one can there unconditionally honor him, yet must one here deliberate upon the conditions with which he joins himself, and extol these conditions not as virtues or as models.

We make a distinction between styles of poetry which have a close affinity and which by lively management often flow in union with one another. Epic, dialogue, drama, stage plays may be separated. *Epic* requires oral delivery by an individual to the crowd; *dialogue*, conversation in private company, where the crowd may listen by chance; *drama* conversation in action, when also it is conducted only before the power-of-imagination; *stage plays* all three together, so far as the sense of the eye is engaged, and under certain conditions local and personal presence may be easily comprehended.

Shakspeare's works are in *this* sense particularly dramatic; by his style of treatment, in the representation of internal life, he wins the reader; the stage requirements appear as nothing to him, and so he makes it easy for himself, and every one allows it, taken spirituously, in order to be easy with him. We spring with him from place to place. Our imagination seizes hold of all the inter-

ludes he offers, aye we thank him cordially that he arouses up our spirit-power in such a worthy way. By the representation of every thing under the dramatic form he alleviates the operation of the imagination; for as

"All the world's a stage,"

we become acquainted with it as with the world itself, and as we may read and hear the most wonderful things, so we imagine, that what transpires on high can pass at once before our eyes: for this reason there are so many abortive efforts at dramatizing popular romances.

But taken strictly, there is nothing dramatic except that which is at the same time symbolical for the eyes; an important action which is significant of one still more important. That Shakspeare was conscious of the way to seize upon this high point also, is proved at that moment, where the son and successor took the crown away from the side of the death-sick slumbering king, put it on and strutted about. But these are only instances, scattered jewels, which among many undramatic things are separately esteemed. Shakspeare's whole style of treatment is characterized by something in opposition to the peculiarity of the stage; his great talent is that of an epitomizer; and there the poet in general appears as the epitomizer of nature: therefore we must here also acknowledge Shakspeare's great merit, but we must at the same time and indeed to his honor avow that the stage was not a fit space for his genius. However it was just this narrowness of the stage requirements that induced him to put a limitation upon himself. But here he did not, like other poets, choose particular materials for his separate labors, for he laid a conception at the centre, and drew on this the world and the universe. Into what a narrow space he condensed ancient and modern history, how he could use the material of every era, on which he often sustained himself even literally. He treated novels less conscientiously as Hamlet testifies. The treatment of Romeo and Juliet is more faithful, yet he destroys the tragic value of the piece almost entirely by the two comic figures Mercutio and the nurse, probably by two popular play actors. The nurse is also in reality made to play a man's part. Let one contemplate the economy of the pieces accurately and he will observe, that both these figures and that which borders on them, appear only as ludicrous intermezzos, which according to our own conclusions must be a harmony of loving intellection intolerable on the stage.

Yet Shakspeare appears most worthy of observation when he edits and re-arranges pieces already existing. Taking King John and Lear, we can apply this comparison, for the older pieces are still remaining. But also in these cases he is again manifestly more of a poet in general than dramatic poet.

But let us hasten in conclusion to the explanation of this enig-

ma. Well-informed men have described the imperfection of the English stage-scenes. There is no trace of the promotion of natural effects which we by degrees, through improvements in machinery, the perspective art and the wardrobe have heightened and advanced to such a point that it would be really difficult for us to be led back again to the infancy of the art: on a scaffolding where one saw little of any thing, where all only *signified* in general, where the audience were allowed to amuse themselves, to perceive the chamber of a king behind a green curtain, the trumpeter who always blew his horn on a certain spot and much more of the like, who will now at the present time permit such things? Under such circumstances Shakspeare's pieces were the most highly interesting legends told only of several persons, who, in order to make a greater impression, had characteristically masked themselves and who as necessity required moved themselves about here and there, came and went, yet allowed the spectator, to imagine for himself upon the bare boards that he was near the paradise and palace of his choice.

Wherefore Schroeder acquired great merit by bringing Shakspeare's pieces on the German boards, as he is the epitomizer of epitomizers! Schroeder seized hold of nothing but the effective, everything else he threw away, yes, even much that was necessary, when it appeared to him to disturb the influence on his nation, on his time. Therefore for example it is true that by the omission of the first scene in King Lear, he has exalted the character of the piece; still he is right, for Lear appears so absurd in this scene, that one cannot, in the following, consider his daughters altogether unjust. The old man excites pity but not sympathy, and Schroeder's idea was to arouse a sympathy in his favor, as also an antipathy against the truly unnatural, but yet not altogether blamable daughters.

In the old piece which Shakspeare edited, this scene represents the most admirable effects in the event of the piece. Lear flees towards France, daughter and son-in-law out of romantic caprice make a disguised ramble on the coast, and without recognizing strike the old man. Here that which Shakspeare's high tragic spirit embittered, becomes all sweetened. A comparison of these pieces affords to the pensive friend of art a continually renewed enjoyment.

But now since many years a notion has been entertained in Germany, that we must represent Shakspeare on the German stage word for word, even although the actors and the spectators might be choked in the attempt. An effort prompted by an excellently accurate translation, would be a total failure, of which the stage at Weimar by honest and repeated endeavors can afford the best testimony. If one would see a Shakspearian piece, he must get it according to Schroeder's treatment; but the phrase allows not an iota to be omitted in the representation of Shakspeare, as

senseless as it may be, one hears it resounding always. The asserter of this opinion maintains its supremacy, also that Shakspeare will in a few years be entirely banished from the German stage, which will be indeed even no misfortune, for the solitary or public reader will experience from him so much the purer enjoyment.

Notwithstanding an effort has been made to edit Romeo and Juliet for the theatre at Weimar according to the sense, as we have diffusely described it above. At the first opportunity we will explain the principles on which this is done, when perhaps it will also be acknowledged why this *critique*, the conception of which is by no means difficult, but which must nevertheless be treated accurately and according to art, has not embraced the German drama. Essays of a similar kind are in operation, and perhaps something will be done for the future, as extraordinary pains produce their main influence not always at the moment.

BIOGRAPHICAL INDIVIDUALITIES.

JACOBI.

FROM THE GERMAN OF GOETHE.

As the long-tried friend Jacobi was on his journey back from northern Germany he called on me and staid several days. The annunciation instantly gave me great pleasure. His arrival made me happy: affection, love, friendship, participation, all were as lively as in former times. But an extraordinary dispute arose in the course of the conversation.

With Schiller, whose character and existence stood perfectly opposed to my own, I had lived along for several years in unbroken intercourse, and our mutual influence had worked upon us in such a manner, that we understood one another even there, where we could not agree. Each held fast to his personality continually until we could agree together again on some other thought and action.

With Jacobi I found just the contrary. We had not seen one another for several years; all that we had experienced, done and suffered, had been elaborated by each one for himself. When we met again that unbound loving confidence manifested itself in all its purity and splendor, animated faith to a perfect participation, as through disposition, so therefore also through thought and deep emotion. But the scene was soon changed, we loved, without understanding one another. No longer could I comprehend the language of his philosophy. He could not suit himself to the world of my emotions. How earnestly I wished to see Schiller here, as

third man, who stood in conjunction, as a thinker with him, as a meditator with me, and then we would have been attracted together into a beautiful union, which at the moment could not be formed between the two over-livers. In this state of feeling we satisfied ourselves in taking mutual notice, only in the most common manner, of our persuasions and philosophical and poetical conduct, and in confirming the old bond faithfully and full of love.

Jacobi had spirit in sense, I nature; that, which should have united, separated us. The first principles of our relation remained unshaken. Affection, love, confidence, were steadily the same, but the animating participation was lost by degrees; until at last it was completely gone. We have never interchanged a friendly word about our later labors. Singular! that persons, who in such a manner give a finished education to their faculties of thinking, are unabled to explain their mutual condition to one another, troubling themselves on account of the one-sided peculiarity of their language, yes allowing themselves to become perplexed from a slight to a prominent error.

Wherefore did you not say in time: He who will rise to the highest point, must have a free will for all; he who acts from the spirit must presuppose nature, he who speaks from nature must presuppose the spirit, or agree with it in silence. Thought will not allow itself to be separated from the thing well considered, neither will the will be severed from the emotion! If an understanding had existed on this, or on that manner, then you could have gone through life hand in hand, instead of that, you are now at the end of the course of your life, contemplating with consciousness the different traveled routes, greeted indeed friendly and cordially but yet with regret.

FURTHER RESPECTING MY RELATION TO SCHILLER.

Every man must by degrees form a method for himself in the restrained condition of his life, so that he may live comfortably. He is always learning to know himself, also the condition of the outer world; he unites himself into it, but throws himself back again upon himself, and at last forms maxims for himself, to regulate his conduct, by which he may be able to come out through it in an admirable manner; he imparts himself to others, receives impartations from others, and as he is continually experiencing opposition or harmony, he binds himself to, or places a barrier between himself and others, and so we hold on to ourselves and to our friends. But it is seldom the case that persons, who are constituted almost one half different from each other, do not repel but attach themselves to and complete one another.

The difficulty lies mainly in this, that the necessary methods-of-life differ from one another and that in the course of time no one overlooks the others.

I seized upon the evolving developing method, disregarding the conjoining ordering system; I knew not what to make of the phenomena—thinkers of various styles around me, on the contrary rather deprived myself of their adoption.

But now it is to be considered, whether I, any more than Schiller, enjoyed a complete maturity, as a man should really wish it; therefore then to the difference of our individualities there was associated a fermentation which each one had to elaborate for himself; wherefore an extraordinary demand was made for great love and confidence, necessity and truth so as to allow a friendly relation without disturbance to work together always onward.

TO THE CONSUL SCHOENBORN IN ALGIERS.

KLOPSTOCK.

FRANKFORT, 10th June, 1774.

Klopstock's glorious work has poured new life in the veins. The only art of poetry of all times and people, the only rule which is possible! This is what may be called the history of feeling, as it strengthens and purifies itself by degrees, and as it fashions itself with expression and language; and these are the most honest aristocratic truths which are noble and serviceable for the poet.

But to think that all which is peculiarly experienced in the deepest hearts should be expressed with a charming simplicity! Yet why do I utter this to you who must have read it already! He who among the young men of the day has experienced misfortune under a troop of reviewers, now, when he reads this work, will not throw away his pen, abjuring all critics and criticism, will not, on account of it, set himself down like a quietist in the contemplation of himself—from which nothing springs. For here the holy fountains are flowing and fertilizing sensibility pure from the throne of nature.

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BROCARDICON.

Art is a mediator of the inexpressible, therefore it appears like madness to wish to reproduce it by words; yet while we labor at it, the understanding gains great advantage, which again is also profitable to the exercising powers.

HUDSON E. BRIDGE. HARRISON P. RIDGE.

Bridge & Brother,

No. 43 Main Street, St. Louis, Mo.,

MANUFACTURERS of Pierce's Patent "American Air-Tight," "Empire" and "Victory" Premium Cooking Stoves, and every variety of Wood and Coal heating Stoves, dealers in Tin Plate, Copper, Sheet Iron, Iron Wire, Tinners' tools, machines, also, manufacturers of Jewett's improved Patent Cary Ploughs.

J. Blattner,

MATHEMATICAL and Surgical Instrument maker, Dealer in Guns, Pistols and Sporting Materials, No. 58 North Second Street, between Pine and Olive, St. Louis, Mo., Manufactures and has always on hand: Surveyors' Compasses, Levelling Instruments, Theodolite Pocket Compasses, Spy-glasses, Barometers, Thermometers, Drawing Instruments, Spectacles, Ivory and Gunter's Scales and Protractors, Hour and Half Hour Glasses, Microscopes and Magnifying Glasses, Hydrometers of silver and glass, Hydrometers for acids and salts, Magic Lanthterns, Electrical Machines, &c., also—Surgical and Dental Instruments; Pocket, Dissecting, Cupping and Self-injecting cases; Taylor's Shears, all sizes; Syringes, large and small, Scarificators, Lancets; Forceps; Turnkeys; large Scales and Weights, for Druggists; Prescription Scales on Stands; Revolvers, Guns, Pistols, Powder Flaks, Game Bags, &c., ☞All the above Instruments repaired at short notice in the best manner.

Wilson & Brothers,

WHOLESALE DEALERS IN HARDWARE, corner of Main and Olive streets, St. Louis, Mo.

C. BENEDICT, Danbury, Conn. D. PEARCE, St. Louis, Mo.

David Pearce & Co.,

MANUFACTURERS and wholesale dealers in Hats, Caps and Straw Goods, No. 120 Main street, St. Louis, Mo.

Hewitt & Steinacker,

SADDLE, Harness and Trunk Manufacturers, wholesale and retail, No. 67 Fourth street, corner of Pine, opposite the Planters House, St. Louis, Mo.

J. A. Ross,

SCALE and Spur Factory, Brass Foundry and Machine Shop, 202 north Second street, between Morgan and Cherry streets, St. Louis, Mo. Constantly on hand and manufactured to order, Platform Scales of all sizes. Counter and Druggist Scales, Flour, Floor, Hay and Car Scales. Also, Beam Scales of Iron or Brass. Scales repaired with neatness and despatch. Spurs, for Dragoons and others, and Brass Castings furnished on short notice.

P. Wonderly,

MANUFACTURER of Copper, Tin and Sheet Iron Work—such as Copper Pipes for Steamboats and Distilleries, Soda Fountains, Copper Kettles, Well and Cistern Pumps, and every other article in his line of business; No. 233 Main street, south east corner of Cherry, St. Louis, Mo. He also manufactures and keeps constantly on hand, Premium Steamboat Cooking Stoves. Tinware always on hand, wholesale and retail.

H. W. LEFFINGWELL, Notary Public. R. S. ELLIOTT, Com'r of Deeds.

Leffingwell & Elliott,

REAL ESTATE Dealers, Auctioneers and Conveyancers, No. 123 Chesnut street, St. Louis, Mo. Real Estate sold on commission, at private sale, or auction. Also, Deeds of all kinds written, and acknowledgments taken. Maps of the city and additions, to be seen at the office, and information given free of charge. Surveying done promptly and correctly.

Glover & Campbell,

Late of Palmyra, Mo., Attorneys at Law,

SAINT LOUIS.

John C. Meyer,

Dealer in Hides, Leather, Oil, and Findings,

No. 88 North Main Street, St. Louis.

Charless & Blow,

NO. 70 and 72, Exchange Building, St. Louis, Mo., Importers and dealers in drugs, medicines, oils, paints, dye stuffs, perfumeries, window glass, glass-ware, &c.

O. W. Jerome,

WHOLESALE and retail dealer and manufacturer of Cabinet Furniture, chairs, bedsteads, &c., Nos. 44, 46 and 48, Olive street, opposite the Monroe House, Saint Louis, Mo.

Sligo Book Store and Paper Warehouse.

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THE undersigned takes the liberty of informing you that he has removed his place of business to Olive street, a few doors above Main, south side, in the Exchange Building, and three doors above Messrs. E. W. Clarke & Co's. Banking House, where he is now opening, and will continue to receive during the Spring months, a large and full assortment of the most

Fashionable Styles of Goods,

In his line, for gentlemen's wear; and where he will be pleased to see his old friends and customers, and their friends with them; and assures those who may favor him with their patronage, that they shall receive his personal attention, and his best efforts to please. Very respectfully, your ob't servant,

J. G. SHELTON.

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ARCHIBALD YOUNG & CO., 99 Main street, St. Louis, Mo., Wanzer Minor & Co., 126 Pearl street. Yew York, Moses Wanzen and Henry J. Minor, New York. Archibald Young, St. Louis.

N. B.—We manufacture all of our own goods, and sell at the lowest possible prices

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JAS. A. WRIGHT.

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CORNER of Second and Morgan streets, St. Louis, Mo. We are prepared to fill with dispatch, and to fit up in superior style, all orders in the Foundry and Machine business, such as steam engines, mill work, mill castings, railroad cars, wheels for coal trucks, lard and soap kettles of all sizes, press screws, &c., made to order at short notice. Wool carding machines, shearing machines, and a large and superior stock of machine cards, we will warrant equal to any in the Union.

All orders from the country will meet with prompt attention.

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Great Western Clothing Emporium!

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BLACKSMITH and Iron Worker, No. 90 North Second Street, between Olive and Locust, St. Louis Mo. Keeps constantly on hand, and manufactures to order, Ox Chains, Sledges, Wedges, and every description of Mining Tools, also Iron Hobbles and Picket Pins. ☞Blacksmith work for Housebuilders, at the lowest prices. ☞He has always on hand, the highly recommended *Iron Frame Bedstead, and Camp Stool.*

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FOR Public Lands—Real Estate—Military Land Warrants—Payment of Taxes—Investigation of Titles—Amicable Collection of Debts, and all other business within the legitimate sphere of an Agents duties, by

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October, 1850.

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☞All letters addresed to John Sigerson, St. Louis, or to James Sigerson, Carondelet, will meet with prompt attention.

JOHN SIGERSON & BROTHERS.

Missouri Foundry.

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FAIRBRIDGE, WOOD & CO.,

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Foundry, corner Clark Avenue and Eighth Street. June, 1851.

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LEE, GAGE & CO.,

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D. D. PAGE, Treasurer,
PHILANDER SALISBURY, Secretary.

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☞ Particular attention paid to estimating on houses or steamboats. nov.

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Also, manufactures to order every article in his line, with despatch. Orders from abroad promptly attended to, and goods carefully packed. All goods warranted as recommended.

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PERSONS wishing to obtain transcripts of records in New Madrid county, can procure them without delay by addressing the undersigned. And to avoid the inconvenience of remitting small sums, the records will be directed to George Pegrim & Co., St. Louis, who will deliver the same upon the payment of the fees.

WM. MOSELEY,
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BRUSHES.

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☞ Collections made on all cities, and promptly remitted for, at current rates of exchange, *free of charge.*

☞ Interest allowed on deposits on time, or to be checked for at sight.

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T. F. Risk.

ATTORNEY AND COUNSELLOR AT LAW,

Office—No. 97 *Chesnut Street,*

St. Louis, Mo.

Charles & Hammond,

BOOK AND JOB PRINTERS,

Chesnut Street,

St. Louis, Mo.

Slate Yard.

JOHN M. CANNON, Slater,

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THE WESTERN JOURNAL,

PUBLISHED MONTHLY.

DEVOTED TO

AGRICULTURE, MANUFACTURES, MECHANIC ARTS, INTERNAL IMPROVEMENT, COMMERCE, AND GENERAL LITERATURE.

M. TARVER & T. F. RISK., Editors and Proprietors.

TERMS—THREE DOLLARS PER ANNUM, IN ADVANCE.

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☞ Owing to the enlargement of the work, six numbers will hereafter constitute a volume, and a general Index will be made out to accompany the 6th and 12th numbers.

☞ Publishers of Newspapers who will insert the foregoing prospectus in their papers, once in three months, will be furnished with the work for one year.

XLII.

VOL. VI. SEPTEMBER, 1851. NO. 6.

THE WESTERN JOURNAL,

OF

AGRICULTURE, MANUFACTURES, MECHANIC ARTS,
INTERNAL IMPROVEMENT, COMMERCE,

AND

GENERAL LITERATURE.

Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER,
EDITOR AND PROPRIETOR.

CORKERY & JONES, DUBUQUE, IOWA,—AGENTS.

ST. LOUIS:
PRINTED BY MORITZ NIEDNER—OFFICE, NORTHWEST CORNER
OF CHESNUT AND THIRD STREETS.

1851.

PUBLISHED MONTHLY, AT THREE DOLLARS PER ANNUM, IN ADVANCE.

ENGLISH AND GERMAN

BOOK AND JOB OFFICE

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April, 1851. G. GOEBEL.

A. B. LATHROP. J. W. MITCHELL. L. G. JEFFERS.

A. B. Lathrop & Co.,

MANUFACTURERS and Wholesale and Retail Dealers in TRUNKS, Valices, Carpet Bags, Umbrellas, Ladies' Satchels, Dress and Bonnet Boxes, &c.

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THE

WESTERN JOURNAL.

M. TARVER, Editor and Proprietor.

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The following gentlemen are authorised to solicit subscriptions and receive money for the Western Journal:

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THE

WESTERN JOURNAL.

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Article I.

THE SIOUX TREATY.

Having long regarded the speedy and early settlement of the entire region, watered by the Mississippi and its tributaries, as the surest means of cementing more firmly the union of the States now composing our confederacy, no event of the present year has afforded us a higher degree of gratification than the treaty of "Traverse des Sioux." By this treaty, the area of civilization has been extended over a region of country containing about thirty-three thousand square miles: a territory larger than that of Ireland, and capable of sustaining 10,000,000 inhabitants.

Those who have had an opportunity of seeing the valley of the Minnesota, (St. Peters,) describe it as being eminently fertile, and more beautiful than any other part of the earth they have ever beheld. These qualities, combined with a climate of undoubted salubrity, constitute attractions which cannot fail to draw to Minnesota a tide of emigration even greater, perhaps, than that which peopled Wisconsin and Iowa.

A few years will add another State to those west of the Mississippi, and the time is rapidly approaching when the inhabitants of this great valley will possess the power of controlling the policy of the nation. This result is regarded as certain and near, by intelligent minds in all parts of the Union; yet, few in any part of the country have contemplated the effects which the settlement of the region west of the Mississippi is calculated to produce in respect to the industrial pursuits and commerce of the nation.

In the early settlement of the Atlantic coast, it was natural that the commerce of the interior should take the direction of the waters flowing from the Allegheny range, and that commercial depots should be established at or near the mouths of the principal streams. And the coasting trade affording the only commercial

highway between the Northern and Southern States, a system of trade was established conforming to the geographical conformation and hydrography of that region. So far as these States are concerned, this system is natural and convenient; but it is obvious that it cannot be extended across the mountains, into the basin of the Mississippi, without violating some of the fundamental principles of commerce. It was impossible, however, for the inhabitants west of the mountains to build up a commercial system of their own, independent of that on the Atlantic, until the natural resources of the country should be developed, and manufactures and the mechanic arts encouraged and established. Hence, the Atlantic system has gradually extended westward with the progressive movements of civilization; and now embraces the most remote settlements.

The inconvenience of this system greatly retards the prosperity of the new States and Territories; for as each successive settlement is more remote from the commercial centre, the inconvenience and cost of making their exchanges are greater in proportion to those incurred by the intermediate States; and, consequently, the profits of their labor proportionably less.

It is scarcely possible, in the nature of things, to establish a perfectly distinct system of commerce for the Valley of the Mississippi, until the whole region between the river and the Rocky Mountains shall have been opened to settlement; but every addition to the territory already opened tends materially to change our commercial relations with the Eastern States. In a commercial point of view, the Mississippi river occupies a relation to the eastern slope of the Rocky Mountains similar to that which the Atlantic coast bears to the Allegheny range; and, consequently, the commerce of the region west of the Mississippi will flow to the most convenient points on this river, where the commodities from every part of the country will be deposited for distribution and consumption.

We have treated this subject more at large in previous articles published in the Western Journal, and only recur to it now in connexion with the Sioux Treaty for the purpose of impressing upon the minds of our readers the importance of removing the obstructions to the navigation of the Mississippi, and of projecting their schemes of public improvement with reference to the system of commerce which we have endeavored to sketch.

The trade of the Upper Mississippi, and its tributaries, must be carried on principally with the South. The vegetable products of Minnesota are in all respects similar to those of New England; and the climate also being similar, it would be difficult to assign a good reason why all kinds of commodities manufactured at Lowell should not be produced, at as little cost, at the Falls of the St. Anthony. And we predict that before the close of the present century, the cotton and woolen fabrics of New England will

be superseded in the West by the products of our own machinery. Hence, works of public improvement, constructed for the purpose of facilitating commerce between distant points in the same parallels of latitude, are liable in time to become useless for the objects designed by those who project them. Not so, however, in respects to improvements designed to open avenues of trade from North to South. The laws governing the products of different degrees of climates are immutable. Cotton will never be produced for economical purposes in Minnesota; nor need the farmer there apprehend that the planter of Mississippi will ever become his rival in the production of wheat or Irish potatoes; and hence a commercial thoroughfare once established between the North and the South, must be as permanent in its usefulness as the laws of Nature.

In the cession of the Sioux lands to the United States, we recognize a powerful argument in favor of taking immediate steps to organize the "North Missouri Railroad Company" for the purpose of making at least a reconnoisance of the route; and of presenting to Congress its claims to a liberal donation of land in aid of its construction. The settlement of the Minnesota Valley is calculated to remove all doubt as to the propriety of moving in this great enterprise without delay; for we are fully persuaded that the improvement of the region through which the route is proposed, will be so great as to afford sufficient business to make the stock profitable as soon as the work can be completed.

We regard the argument in favor of the grant of land in aid of this work even stronger than any that could be adduced in behalf of the Central Railroad of Illinois; and we are persuaded that in all respects it is equally important. And were a grant of six sections of land obtained to aid in the construction of each mile of road, we believe that capitalists could be found that would readily take the stock and complete the work to the great bend of the Minnesota in seven years from this date.

A vigorous prosecution of this work, by non-resident capitalists, would be the means of settling the country, and of developing the resources of the region west of the Mississippi to a degree that has never been witnessed on any other part of this Continent. The benefits resulting from this enterprise will not be confined to the North, for by giving a southern direction to the commerce of Minnesota, the markets of the South will be better supplied, and the prosperity of the cities better promoted. The accumulation of capital in the Eastern cities, and the construction of public works, are gradually drawing off the trade from New Orleans; and it must be regarded as the true policy of the Southern States of the valley to do every thing in their power to sustain their own great emporium.

A declining city possesses no attractions for the merchant or capitalist, and if the Commerce of New Orleans should be per-

mited to decay it will not only affect the prosperity of the planting interest throughout the valley of the lower Mississippi but of each and every part of the Western States. New Orleans may not be able to regain all she has lost east of the river; but by a prudent and well directed policy on her part, sustained by the western delegation in Congress, it is still in her power to secure the commerce of the region west of the river; and this of itself will be sufficient to make her a great city. But if in a contest for the north western trade the eastern cities should succeed in drawing it off in that direction, New Orleans may be regarded as having already reached a point that she can not permanently maintain; and a decided decline in her commerce and population will be inevitable.

It is highly important to every part of the west, that there should be a great commercial city on the Gulf of Mexico, where a fair proportion of the duties on foreign Merchandize may be paid to the government. This would prevent, in a great degree, the continual accumulation of Money at New York and other eastern cities, and serve to check the current of circulation which never ceases to flow in that direction.

By a Statement from the treasury department, showing the amount of duties collected at fifteen of the principal ports of the United States during the first six months of the present year, it appears that only $2,296,663 was collected at New Orleans against $31,757,199 at New York. And that of $43,021,107 collected at the fifteen ports only $2,758,315 was collected at the ports on the Gulf, and at those on the Mississippi and its tributaries. While such an enormous demand for money to pay duties exists at the east the circulation in the west can never be sufficient for the ordinary demands of business, except perhaps for a few months at a time.

We throw out these suggestions with a hope that they will attract the attention of western statesmen, and lead them to examine the subject of western improvements in all its bearing.

The following statement from the Burlington Telegraph contains, as we are informed, the important features of the Sioux Treaty.

STIPULATIONS OF THE SIOUX TREATY.

Perpetual peace.

The cession of all the Sioux lands east of Sioux River, and Lac Traverse. The line then runs up to the head waters of Ottertail Lake, thence down from the head of Watab river to the Mississippi.

The cession embraces the entire valley of the Minnesota and the Eastern tributaries of the Sioux river, and is estimated to contain 21,000,000 acres.

The Indians reserve for a home, a tract commencing at Lac Traverse, and running about 100 miles south, down to the mouth

of the Yellow Medicine, and twenty miles wide, on each side of the river.

The Indians are to receive $1,665,000, as follows:

To be paid after their removal to the Reservation, $275,000, and

To be expended in breaking land, erecting mills, and establishing manual labor schools, $30,000; amounting to $305,000.

The balance of $1,360,000 to be invested at 5 per cent. for fifty years, which will give an annual income of $68,000, to be paid as follows:

In cash, annually,	$40,000
Goods and provisions,	10,000
Civilization Fund,	12,000
Education,	6,000
	$68,000

After fifty years all payments to cease, and the principal of $1,360,000 to revert to the Government.

The intercourse laws, so far as relates to the introduction and sale of ardent spirits, shall be continued in full force, until changed by legal authority.

The President is to have the power to prescribe a code of laws, and modify the same whenever deemed necessary, for the government of the Indians.

The Indians are allowed to remain on the lands ceded for two years.

The $275,000 to be paid down, are for the purpose of paying the expenses of the removal, and the claims of the Sioux traders, who have agreed among themselves how much each shall receive.

The ceded lands will be open to settlement—"squatting"—immediately after the ratification of the Treaty by the United States Senate.—*Minnesota Democrat.*

The terms obtained by the Government are certainly as favorable as could be desired; and in that respect the conduct of the commissioners deserves the approbation of the country; but, in our opinion, the peculiar relations subsisting between the Government of the United States and the Indian tribes, demand something more at our hands than a fair price for their title to the country which they claim. We take their hunting-grounds to be converted into fruitful fields and pastures: this, the cause of civilization demands—it is our duty. But, doing this, we abridge the means provided by Nature for the support of her children; and justice requires that we should bestow upon them, if practicable, the arts of civilization in exchange for their natural inheritance. It is true that this principle of justice is perceptible in the provisions of the Sioux treaty; but as we understand its provisions, they are calculated but in a slight degree to promote the

cause of civilization. Only thirty thousand dollars is appropriated to the purposes of breaking ground and establishing agricultural schools, while $40,000 is to be paid annually, without any limitation in respect to its use. This annuity will, doubtless, relieve many of their immediate wants, but will do but little towards improving their condition as savages. Instead of stimulating them to adopt habits of industry, it will tend to make them more improvident — the money will pass into the hands of traders, and leave the country without having aided in improving the condition of the people. Had even one-half of the annuity been appropriated to the establishment of agricultural schools, and to the employment of suitable persons to instruct the Indians in the useful arts, the next generation might have been rendered capable of supporting themselves by the arts of industry, and the nation redeemed from a state of barbarism.

This would be a conquest worthy of the American people, and add more to the glory of the nation than all the victories won upon the battle-fields of Mexico.

[For the Western Journal.]

ARTICLE II.

GOVERNMENT AND EDUCATION.

BY A MEMBER OF THE KEOKUK (IOWA) BAR.

(Continued from Page 319.)

We will now proceed to an examination of the economical relations existing between Government and Education. These relations we will find are most intimately connected with the moral influences and tendencies of education and may well be considered under one and the same head. Mr. Sismondi informs us that Economy according to the proper sense "of the word is the regulation of a "family or house—political economy, the regulation of a family "applied to a state". Professor Chrobeeling of Geneva (Livitz) insists that "The existence of wealth is the distinctive characteristic of the state of Society—the summary of the advantages which man derives from that state". These definitions may be correct, but to me, they are unsatisfactory. I like that other definition of an old clear-headed man, who thought deeply and wrote perspicuously. "It is the office" says he "of the political economist to point out in what way social happiness may best be attained through the medium of national wealth". This inti-

mates that the wealth and resources of the nation ought to be appropriated to the advancement of the public welfare and happiness; and when THAT is demonstrated *which* is an advantage to the state, and will contribute to its glory, stability and grandeur through the moral, social and intellectual culture and elevation of its citizens, its wealth and resources ought to be employed for such purpose.

There are two inquiries connected with the consideration of the economical influences of education, which are entitled to great weight and deliberation. The first is—the influence of education upon labor, and the other, its influence upon crime viewed and discussed as questions of political economy.

These questions we propose to discuss in their order. An opinion prevails in the minds of many persons, that learning and labor are irreconcilable with each other—that education lifts the individual above labor, and that there exists between them, a natura and incurable antagonism. Many parents object to education, on the ground that it unfits their children for the pursuits of industry, and the acquisitions of simple. honest labor. It is said they become too proud to follow the ordinary occupations of life. Are these things so? Are these allegations true? The charge is a serious one, affecting deeply the very sources of national wealth: it is honestly cherished and earnestly made, and as a mixed economical–political question we cannot, if we would, entirely overlook it.

It is admitted — that a well educatad man will but seldom adopt the hardy and more laborius pursuits of lower life. And why, not because education has destroyed or impaired his *ability* to labor successfully, for in truth and in fact his very education is the fruit of exhausting, long continued toil and industry, but because it has fitted him to move in another sphere, more congenial with his tastes, more honorable in the estimation of the world and more profitable in its pursuit. He is equally, *yea more*, capable of performing labor, than, if uneducated; but education has conferred new attributes upon him—clothed him with new powers — enlarged the field of his ability and usefulness and increased the number of opportunities of his success in life. New avenues are opened before him for the display of talent, and the successful application of all his faculties;—and he does simply what every man does, or ought to do—he selects that occupation which is most useful, profitable and respectable. If the influence of education should, at any time, or in any case, lead to idleness and crime, the evil, beyond all doubt, lies in its perversion and not in its legitimate tendency. The instructor must have neglected to impress upon the mind that, which it is his highest and clearest duty to do—the necessity of industry and the excellency of virtue.

We consider education and labor, not only as entirely recon-

cilable, but as reciprocally assistant and advantageous. We contend that the character and dignity of all employment are determined by the amount of intelligence engaged in it. There exists no inherent, necessary degradation in any honest pursuit. Labor is only degraded in the public eye, when performed by ignorant and uneducated men. Society estimates the character and dignity of labor, by the character and intelligence of the persons employed in it: and, if the lowest calling in life in the public estimation, should suddenly by any strange revolution embrace in the ranks of its co-laborers the profoundest scholars of the age, what would be the result? It would not only become immediately elevated and respectable, but the improvement which would be introduced, the complex intelligence that would be thrown into it—would be so extensive, complicated and I may say scientific in their character, as to render it indispensable for man to educate himself to understand it.

We contend further, that labor is only interesting and will be pursued with pleasure in proportion as the mind is interested in it. Let us be understood. The mere animal accomplishes its work under the lash of the whip—it has no mind—no interest—no intelligence. Every thing it accomplishes is through the exertion of mere physical strength. The laborer, who is totally ignorant, goes to his daily toil wholly from necessity. To acquire a bare subsistence he is compelled to work; he has no love for it, and the mind has little or no connection with it. He, himself, looks down upon his labor as a degrading thing—as a pure necessity—as the means to acquire food and raiment and shelter. There are no improvements made in its prosecution. The idea of subsittuting physical agents to aid him in his manual labor and lighten his burthens, never enters his brain; and he toils on from day to day—from year to year—without improvement, without hope of relief—without a single, well directed effort to elevate his social or physical position. But a master-spirit will sometimes burst from even these gloomy shades; and inventive genius with its magic wand and mysterious powers will change the whole scene. Machinery comes with its briarean arms and never tiring energies; and that which before required its thousands to perform, now only requires its hundreds;—that which before was conducted by the ignorant, is now done by the comparatively rich and educated. Mind has illumined the abodes of darkness, and knowledge has sown her seeds broad cast, and education raises up, and reconstructs and adorns this portion of the great fabric of labor. By thus enlisting the mind in its pursuit—clothing it in the dignity of knowledge and exciting the pride of emulation, you raise the laborer to a true sense of his importance—his whole energies are stimulated, and he identifies not only his comfort but his respectability with success and distinguished skill in his employment.

We contend, lastly, that education gives an intelligent direc-

tion and more efficient result to all labor and physical effort. Knowledge enables man to economize his strength in the accomplishment of any given pursuit. It enables him to avail himself of the use of mechanical agents in the performance of that which he could not otherwise perform. It enables him to construct machinery to act as an auxiliary to lay under contribution the improvements in science and the useful arts, and by a knowledge of the laws of nature to act at proper seasons with a given amount of labor and calculate upon known results.

The influence of education on production and its distribution is seen in the machinery which works our mills and manufactories—in the application of steam to the car on the rail road—the boat on the river and the ship on the ocean—in the application of chemistry to agriculture and the arts, and in the cheapened transportation by canal conveyance.

Great agencies are indeed at work. While we repose in indolence or indulge in luxury, the water and the steam are sawing our wood, and grinding our grain, and weaving our cloth, and printing our books, and manufacturing the conveniences and luxuries of life, and transporting them over the land and the ocean, over the mountain and across the valley, bringing home to us all the multiplied products and the richest and most beautiful manufactures of the world.

Great agencies are indeed at work. Mankind are becoming more enlightened. Knowledge is penetrating the dark and secret places of earth. Education is laying broader and deeper the foundations of her power, and building up higher and stronger the monuments of her glory. Christianity is diffusing her genial rays amid the savage and benighted nations afar off. Superstition is yielding to the dominion of reason—the human mind is throwing off the shackles that have enslaved it, and standing forth proud and erect in the image of its maker. And civil freedom, which, not long ago, could scarcely find a resting place, has taken up its abode and home in America—and is now spreading forth its glory and its power over the nations of the earth, and marching onward in majesty and in triumph to universal empire.

Let us now proceed to examine the influence of education on crime or rather the intimate connection existing between ignorance and crime. We regret not having had a better opportunity of examining more extensively the statistics of crime in reference to the degree of mental culture of the criminal, but we have gathered sufficient facts to demonstrate the overruling importance of education whether contemplated in a moral or economical point of view. These statements to the philanthropist and the statesman will be found intensily interesting and instructive.

Doctor B. Forde, the ordinary of Newgate, (England) in reference to the causes of crime remarks that "the ignorance of the inferior classes of Society is the *first* and *great cause* of the

multitudinous depredations which are daily and nightly committed on Society; idleness is the second".

Among one hundred and fifty two criminals in Newgate who petitioned the Sheriff of London—twenty-five could write a fair hand—twenty-six illegibly and one hundred and one were marksmen who could not write at all. In Prussia, there exists an excellent system of common school education. Her population in 1837 was 13,566,897. During a period of seventeen Years from 1818 to 1834 inclusive, the whole number of executions that took place was one hundred and twenty-three. In 1832-3-4 there were only two executions in each year: The average number for the seventeen Years above referred to, was only 7⅓ per annum. Lesser crimes, we are informed, are proportionably rare.

Fletcher of Saltown in speaking of Scotland in 1698 says "There are at this day in Scotland two hundred thousand people "begging from door to door." At this period of time there are very few beggars and no poor rates. Scotland has a superior system of popular instruction, which is highly creditable to her honor, public spirit and liberality. Her school system commenced under James VI, in 1616 and was ratified and confirmed by Charles the I. in 1633. The first compulsory provision, however, authorizing the assessment and collection of taxes for the support of public schools, was not incorporated into her system until 1646. On the restoration of Charles the II. in 1660 this excellent law was repealed; but it was re-enacted in precisely the same words and conferring the same powers in 1696. This ancient law displaying so much wisdom, and which encountered such bitter opposition, now constitutes the basis of the common school system of Scotland. The result has been, that nearly every Scotchman can read—beggary has been in a great measure extinguished and she has no poor rates eating out her substance and paralyzing her energies. The very salutary effect this has had on the prevention of crime, we shall learn directly when we come to compare her criminal records with those of England and Ireland.

Neither England nor Ireland have any regular, practical, efficient plan of public instruction. It is true, they have their charitable schools and so far as they go, they are very well. But they are founded on a wrong principle. Every scholar feels sensitively conscious that he is participating in a charity; and to be a *charity scholar* is considered as wanting in independence and respectability, not to use a stronger expression. The idea of dependence fastens itself upon the mind, *and this* depresses its energies, paralyses its faculties and subdues its ambition. We will now examine the comparative commitments, capital sentences and executions in England, Ireland and Scotland—and we will for illustration take the Year 1834.

The number of commitments in England was 22,451 with a population of 13,500,000. In Ireland, 21,381 with a poplation

of 7,750,000 and in Scotland 2,711 with a population of 2,250,000. The number of persons sentenced to death during the same year was in England 480—in Ireland 197 and in Scotland 6. The number of persons executed in the same year was in England 34—in poor, oppressed, degraded Ireland 43 and in educated Scotland only 4. In England, there were 864 sentenced to transportation for life—in Scotland 30. In England, 688 were transported for a period of 14 years—in Scotland 47. In England 2.501 were transported for seven years and in Scotland 197. The Reader cannot but observe the astonishing disparity existing between these Countries—a disparity that cannot be reconciled except on the ground of a higher grade of moral and intellectual character existing in Scotland as compared with England.

We will now examine the degree of instruction among the criminals committed in England and Wales during the Year 1837—and I think it will strike the mind of the reader with astonishment at the vast mass of ignorance and degraded, uncultured mind which this Statement exhibits. It affixes the deep broad seal of gross neglect and apathy on the part of government towards its citizens. There is one fact, however, connected with this statement, of thrilling interest—replete with useful instruction and full of joyous hope—it is the comparatively few educated females who were guilty of any crime. To their eternal honor be it said—that when properly instructed—when their minds are cultivated and enriched with Knowledge—they but seldom stray from the paths of virtue or violate the laws and good order of Society. They are steadfast to their true character and principles—obedient to the pure and lofty impulses of their nature and through prosperity and adversity—in the higher and in the lower walks of life—if only educated, they are ever found beacon-lights luring men from the haunts of vice and dissipation and cheering him on in the pursuits of virtue and the elevation of his destiny: And I firmly believe that the more thorough and comprehensive our examination into the statistics of crime and the state of education among the criminals, the more clearly and conclusively will this agreeable truth be proven and illustrated.

The whole number of commitments in England and Wales in 1837 was as follows, viz 23,612 of whom 19,407 were males and 4,205 females, of those, there were unable to read and write 8,464 of whom 6,684 were males and 1,780 were females. There were able to read and write imperfectly 12,298 of whom 10,147 were males and 2,151 females. There were able to read and write well 2,234 of whom 2,057 were males and 177 females.—There were of those who possessed instruction superior to mere reading and writing well 101 of whom 98 were males and only 3 were females—and the number of those whose grade of instruction could not be ascertained were 515 of whom 421 were males and 94 were females. In this enumeration of commitments embrac-

ing 23,612 individuals, it will be observed that there are only 98 males and 3 females who had received a good, common school education. What volumes does not this fact speak in behalf of public instruction! With what demonstrative and persuasive eloquence it pleads the cause of educated mind! With what inspiring hopes it animates the heart of the patriot and christian!

In London in 1847 62,000 persons were taken into custody charged with the commission of crime of whom 41,500 were males and 10500 were females. Of the males 13,000 were totally ignorant of even the rudiments of learning and only 150 could read and write well. Of the females 9,000 could neither read nor write, and only *fourteen* could read and write well. England and Ireland have no general system of instruction and in one Year they sentenced to death 677 persons—launched into a premature grave and into the presence of their God 77 human beings with immortal souls and immortal destinies—and expelled from their Country and their homes forever 600 of their own citizens—the responsibility for whose wickedness and crime rests in a great measure with the British Government.

Scotland has her public schools and most excellent system of general education, and during the same period only 6 persons were sentenced to death and 4 executed—leaving only two to be transported.

It is not necessary to dwell upon the immense responsibilities resting upon these governments, nor to attempt a description of the broken hearts—the blasted characters—the crushed hopes and the darkened, ruined prospects of the friends and families of those poor miserable wretches—gone whither? God only knows. We will not enter the fire-side circle, and witness the groans and agonies and utter wretchedness of the new-made widow, or listen to the cries and distress of the fatherless children or gaze upon the aged and disconsolate mother as she sinks with crushed spirit and in black despair into the tomb. Innocent though they may be, and deserving of sympathy and commiseration as no doubt they are, yet alas! the world's scorn and contumely are theirs—the finger of shame is pointed after them wherever they go—the cold iron has entered their soul—and there it will remain to scathe and agonize and excruciate until summoned by their Creator to his throne.

These however afford interesting considerations for the Patriot and Christian, which they will not overlook in their estimate of human happiness and human misery.

In England from 1794 to 1834 inclusive there was collected for the support of the poor alone through her poor rates the enormous aggregate sum of one thousand millions of Dollars; averaging 25,000,000 of Dollars per annum.

In Scotland there are, we believe, no poor rates and poverty is scarcely known. Nearly every person is able and willing to earn

at least a decent support. In England, every eigth man, it is calculated, is a beggar: in Scotland there are very few. The immense overshadowing pauperism of England is in a great degree the result of ignorance and constitutes a most prolific source of crime. It costs England fifty millions of Dollars annually for the support of her criminal courts—her prisons, her penal colonies, her police and her poor. Would not this amount annually expended erect a noble monument in the cause of education! How many thousand hearts would leap with joy! What a throng of mighty intellects would burst into existence to shine as bright and guardian lights in the pathway of nations! How the soul and the intellect of the nation itself would expand! How morality would be extended and lifted up! How industry would be promoted and its energy and resources developed!—the useful arts perfected—the comforts and conveniences of life multiplied, religion purified and spread abroad, and all the conservative elements that sustain Society, and all the beautiful influences that cement it, be drawn out into bold relief and efficient action!

Let us now turn our attention very briefly to our own Country, and we will discover the same lamentable ignorance linking itself with crime. In Ohio the Chaplain of the Penitentiary remarks: "of the 276, nearly all are below mediocrity—175 are grossly ignorant and in point of education scarcely capable of transacting the ordinary business of life".

In the new Penitentiary in Philadelphia in 1835 of 217 prisoners, 63 could not read and write—69 could read only and 85 could read and write, but most of them very indifferently. Scarcely one possessed an education equal to that acquired at a good common school.

In Auburn, N. Y., in 1835 of 228 prisoners only three had an academical education—59 could write and cypher—56 could read and write only—50 could read only and 60 could not read.

In Connecticut, no person of liberal education, or of either of the learned professions had been sent to state prison up to the Year 1836 and one half of those persons then imprisoned were unable to write. And we would observe that in January 1841, having occasion to visit the state prisons of New York, we ascertained that there were in the aggregate about 1750 prisoners, of whom only 68 were females. More than one half of those were colored females, and among the white females, the greater portion were of foreign birth.

In the Penitentiary at Richmond Va., there were in 1841 about 180 convicts, of whom three only were white females and these were destitute of education and low and coarse in their appearance and manners. A very large proportion of all these prisoners were poor ignorant degraded beings.

And in the State of New York we have a recent exhibit containing a condensed view of the appalling result of ignorance in

its connection and companionship with crime covering a period of nine Years. In this State from 1840 to 1848 inclusive, the total number of convictions for crimes was 27,949—of these 1,182 were returned as having received a common education—414 as having a tolerably good education and 128 only as well educated. Of the remaining 26,225, about one half were ably merely to read and write—the residue were destitute of any education whatever.

We most sincerely trust, these facts will carry conviction to every mind of the importance of education in a moral point of view as it regards the prevention of crime, and in an economical point of view as it diminishes the expenditures of government; the statistics we have here collected and arranged, are drawn from unquestionable authority, and the highest confidence may be reposed in their accuracy.

Indeed in taking an enlarged and enlightened view of our Country, and of her social condition and requirements, we at once perceive that the great want of the Republic is moral power in all it's developments. The empire of free government has been erected on a broad aud solid groundwork, worthy the Architects who hewed out the massive wall, and sculptured the lofty pillar and spanned the noble arch of our political fabric. That fabric is impressive in it's outline and tasteful in it's proportions—springing up and revealing itself with a massiveness and grandeur that win our approval and compel our admiration. It is at once the glory of the civilized world and the master production of the age; and yet it is true that this palladium of our civil liberties and social blessings—this crowning jewel of our most cherished hopes—depends for its very existence upon our moral power and its development as a fixed principle in national character. Without the cultivation of the moral affections, and the preservation of a high tone of public sentiment, this Republic must be overwhelmed by the torrent of licentiousness and vicious indulgence, which has swept from existence the structure of free governments, in every age, and of whatever form. The history of the past has demonstrated the grand proposition that civil and religious freedom cannot vigorously exist unless they are well sustained by an ever-living, ever-acting moral energy, grounded in the elements and principles of a general intelligence pervading the public mind; and this solemn truth ought to penetrate deeply into the heart of every one who is devoted to his Country and her institutions.

Whatever, then, tends to unfold our moral nature—to awaken and improve the mental faculties—to scatter abroad a beneficent influence over the face of society and to knit closer our domestic and social relations, presents claims upon our kind consideration which we cannot justly resist.

Intellectual power and moral suasion combined, form a conservative element in all liberal governments, and enter into the very life and spirit of human progress. The age in which we live is

lifted up by it, and the arts and civilities of life acknowledge it's refining influence. The kindliest sympathies of domestic intercourse are softened, and the finest affections of our nature rendered purer through it's elevating power.

How truly then, may it be affirmed of moral power that it constitutes the great desideratum of all free government; and that to secure moral power we must first establish a *broad, practical system* of public instruction.

And now it may be asked, amid the mass of crime and ignorance and superstition which Yet pervades the world and mars the good order of society, whence spring our hope and faith in the onward march of civilization and in the progressive development of man's social, moral and intellectual nature? From whence flows our abiding confidence in the future—in enlarged knowledge —in increased happiness to man and in the dignity and perpetuity of our institutions? We answer that our hope springs from the dignity and grandeur of our institutions and the immortality of our destiny. Our faith connects itself irresistibly with the wisdom and providence every where displayed in Creation. Our confidence clings instinctively to a solid education and its accompanying blessings—to the perfection of our free institutions and to the dissemination of christian principles.

We have heretofore observed, that we live in an era of intense energy and restless action. This is true. We cannot, if we would, sleep in the bosom of this revolution and vitality. We must either act, and that too with decision or fall back into obscurity and comparative uselessness. There is no other alternative.

The citizen is calling out for more liberty and more power. The mind demands knowledge and will not be refused. The form of justice—gashed and bleeding and mutilated though it be in many Countries and Nations—is yet walking abroad in the pride and majesty of its character, in the full possession of all its original faculties and endowments—pleading earnestly, eloquently pleading for the rights and power and liberties of the human race. Monarchs are literally trembling on their thrones and the iron sceptre of their Empire is yielding most recuctantly inch by inch to the onward irresistible press of the spirit of liberty. The venerable yet oppressive organizations of the olden times are crumbling into atoms. Moral power is taking the place of physical power, and rapidly becoming the mightiest lever in Society. The air is purer and the redeemed soul breathes freer than heretofore. Heaven grant that the march of reform may be onward and upward until our fellow man in every Country and beneath every clime shall be able successfully and triumphantly to vindicate his rights and establish his liberties.

We might appeal to legislators to throw their hearts and influence into this matter. They would consult the dignity, the honor, the peace and the economy of Government in a generous promotion

of public instruction; and it is a solemn duty they owe to God and their race, to interpose the public arm of society to lift up man from ignorance and crime, and plant in his heart the seeds of knowledge and virtue.

We do appeal to every citizen: Let it be forever remembered, we all have a common interest and influence and right in our institutions and in the preservation of their strength and glory and purity. And these remarks possess a most peculiar application to our position as *western Men*, situated in the geographical centre of an immense valley—yet in the freshness of Youth, and containing within its bosom elements of greatness and empire of untold power and capacity. Here, we have the young and vigorous citizen with hope and energy and enterprize guided by the older counsels of wisdom and experience. "Where" says Schlegel in his history of Literature "was there ever any work entitled to be called truly perfect, in the formation of which the strength and enthusiasm of Youth have not labored in companionship with the experience and maturity of manhood!" Here, we have indeed a great work to accomplish and perfect. Here, are our homes, our families and our property. Here, our business, our hopes and our sympathies centre. Here cluster the endearments and the treasures of the heart.

How true it is, that we are gathered together from different and distant lands. We have strayed away from the fire side circle of the paternal mansion, and beyond the hallowed sounds of a father's admonitions and a mother's prayer. We have wandered far from those loved scenes of our childhood which will be consecrated and cherished among the holiest, fondest reminiscences of age.

We have left behind near relatives and dear friends, mountain and valley have been traversed, until we have selected our homes, resolved to build up our fortunes, and cast our destinies on the borders of the majestic rivers, and amid the bosoms of the fertile prairies of the West.

Indeed, the *position* of the bold and intelligent *adventurer* as he bids an affectionate farewell to the parental roof and launches abroad amid western climes to seek a home—not in the spirit of conquest but of peace—not with sword unsheathed and close-linked phalanx and blazoned banner—but accompanied with the arts of civilization, the fruits of industry, and the humanities of religion—is most beautifully and eloquently portrayed by the Poetess in her allusion to the Pilgrim Fathers:

> Not as the Conqueror comes,
> They the true-hearted came;
> Not under the roll of the stirring drum,
> Or the trumpet that sings of fame.
> Not as the flying come,
> In silence and in fear;
> They shook the depths of the desert's gloom,

With their hymns of lofty cheer.
Amidst the storm they sang!
And the stars heard and the sea;
And the sounding aisle of the dim wood rang
To the anthem of the free.
The ocean eagle soared
From his nest by the white wave's foam;
And the rocking pines of the forest roared,
This was their welcome home."

And a welcome home let it be to those who are here, and to those who shall come after us. A welcome home, let it be, to all the arts and acquirements that adorn and enrich society. For we have come together upon this favored spot of creation to establish and foster new social and civil institutions—to diffuse the lights of science and the treasures of literature—to cultivate a taste for art, and to enjoy all the blessings of peace and religion.

How profound—how solemn, how transcendent is our duty growing out of these extended and interesting relations.

Let us then walk steadfastly in the paths of virtue—let us become enamored of knowledge—let us disseminate widely the kindly influences of education—let us cherish the pursuits of science and philosophy, and adorn our minds with the graces of art. Let our lawgivers faithfully and earnestly perform their whole duty. Let us be true to ourselves, our families, our country, and our God—and this land will become lovely as a garden, and her population more elevated, intelligent and virtuous, than that of any other nation. The present teems with interest—the future is brilliant with hope, and it will be our own fault, if the proudest anticipations of our Country's glory are not more than realized.

The seed of liberty planted by the Pilgrim Fathers and watered by the blood of the revolutionary Patriots, has grown up and spread out into a mighty tree. Its branches cast their grateful shades over twenty-three millions of free men. Let us protect this noble emblem of liberty, in this broad and fertile field of action, in which our destiny has been cast. Let us cherish it as we would our household gods. Let us baptize it in the font of virtue and consecrate it now and through all time to the cause of education. And its roots will penetrate deeper, and its shadows circle wider, until man in every clime and bordering every shore, shall be freed from the shackles of tyranny and stand erect in the dignity of his nature—restored to all his greatness and confirmed in all his rights—through the energy and influence—the simplicity and moral grandeur of AMERICAN INSTITUTIONS and AMERICAN LIBERTY.

Article III.

CHANNEL OF THE MISSISSIPPI RIVER.

A channel with water sufficient to admit the largest ships from the sea into the Mississippi river, would be of incalculable benefit not only to the "great valley," but also to the thriving East.

Our merchants are now building ships to carry more and to sail faster than ships were ever known to sail and carry before.

Merchant ships of 2000 tons are so often launched now-a-days from our building-yards, that the event ceases to excite remark. We can well recollect the day when a merchantman of 1000 tons was considered to be an enormous vessel.

These large and swift vessels can carry freight on terms so much more favorable to the parties concerned, that they are fast "removing the old slow coaches" out of competition. They even vie with the steamers in their passages; a few weeks ago one made the trip to Liverpool in thirteen days. They can actually sail round the world in less time than it takes a common vessel on the average to go from here to California. The bigger the ship the cheaper the freight.

And it would greatly benefit the West if these ships could come up to New Orleans and there load with our produce for Eastern markets. In consequence of their superior sailing properties, they would bring all the commercial markets of the earth — for in these days of steam and lightning, time is the true measure of distance — nearer — nearer by ten, twenty, thirty, and even forty per cent. to New Orleans and the Valley of the West, than they now are.

And hence the problem of deepening the mouth of the Mississippi, though always one of exceeding interest, is now, in consequence of these improved models of ships, invested with additional importance.

Though we cannot prove as we do a mathematical problem, that it is practical to deepen and keep open the mouth of the Mississippi; yet we can show that the chances are altogether in our favor, and demonstrate the practicability of it, with a force of argument and reason that ought to satisfy every one that the experiment is worth the attempt.

To do this, we are permitted to quote the opinion of Lieut. Maury, of the Navy, who, perhaps, has given the subject as much attention as any man in the country.

It will be observed that his letter to Mr. Soule, was for the most part suggestive, though inclining most decidedly to the opinion that one or more of the passes might be deepened and kept so, to any extent that navigation requires.

Congress viewing the subject in the light here presented, voted

at the last session an appropriation for the necessary surveys. But we have had surveys before; and there the matter has ended.

We think that the information which Lieut. Maury has obtained, the examinations and experiments which he has induced the Government to have made upon the habits of the Mississippi river, and the facts that he has collected upon the subject, leave no doubt as to the possibility of the work. There is no need of any farther examination. That the thing is practicable at a very moderate expense, we think must appear obvious to any one who will read the following:—

NATIONAL OBSERVATORY,
Washington, April 19, 1850.

DEAR SIR: I concur fully in the opinion as to the necessity of doing something towards keeping open a channel across the bar at the mouth of the Mississippi river.

It would be difficult to express in dollars and cents the value of a good ship channel there.

The surplus produce that is sent off annually from the valley of that river, already exceeds in value the entire foreign commerce of all the States. And it is increasing in value every year.

Every one who has an interest in the soil there—every planter and farmer and citizen who is engaged in the cultivation or sale of the vast quantities of produce and merchandize that are floated up and down the Mississippi river, is directly concerned in the deepening of that channel.

Lieut. Gedney, while engaged some years ago on the Coast Survey, discovered at Sandy Hook a deeper and a better channel than the one which was then used, and which was nevertheless capacious enough to admit vessels of the largest draft.

Yet because this discovery facilitated the ingress and egress of vessels which are engaged in fetching and carrying the commerce of New York, the merchants of that city called meetings; the citizens passed resolutions, and the corporate authorities, in a body, conferred gifts upon the discoverer. All agreed in the opinion that the Coast Survey, though it should cost millions, and should produce no other result, had, by this discovery alone, paid for itself many times over.

If such value were attached to the discovery of a channel at the mouth of the Hudson, where there was already one of twenty odd feet, what must be the value of a good ship channel at the mouth of the Mississippi, where there is one of eleven and a half to fourteen feet only.

The national importance of a good ship channel at the mouth of the Mississippi is so obvious, the value of it so palpable, that neither argument or illustrations can make it more so.

My attention for years has been directed to this subject, and to the study of the causes which are at work in altering the bed and bars of that river.

A year or two ago, Mr. Mason, while Secretary of the Navy, was kind enough to gratify me by directing a series of observations to be made at the Memphis Navy Yard, with the view of ascertaining, among other things, the velocity of the current, the amount of evaporation, the volume of water, together with the quantity of sediment borne down annually past that place by the Mississippi river.

These observations were undertaken by Mr. Marr, a passed midshipman in the Navy, and being skillfully conducted, were crowned with results of much interest.

Like causes produce like effects. The agents which are at work in the river below New Orleans, and the results thus obtained, lead to confirm me in the belief that by constant dredging, it is practicable to keep open a channel at the mouth of that river, with several feet more in it than there is now.

I am not prepared with estimates as to the cost, because I have never been able to procure the data requisite for such an estimate. But I am prepared to show to the satisfaction of any philosophical mind, that there is every reason for believing that the thing can be done, and that the prospect of success is such as to justify the attempt.

The bed of the lower Mississippi consists in places of whitish clay, very tenacious, and commonly known as "Fuller's earth." This clay is covered with sediment, which has been brought down by the turbid waters, and deposited in layers of various thicknesses, amounting in some places to many feet.

I should suppose that this substratum of clay does not extend much below New Orleans: certainly not to the mouth of the river, on account of the recent date — geologically speaking — of the formation there.

But this stratum of sediment upon the clay shows us what Nature, and her agents that are at work elsewhere, would teach us to expect, viz: that the Mississippi is filling up by the continual deposition of sediment, its bottom to a higher level. This is an operation with which we have been made familiar by all of our navigable streams on the seaboard.

The Potomac, the Rappahannock, James rivers, &c., are all much more difficult of navigation than they were fifty years ago, or when the country was first discovered.

Fifty years ago, vessels used to come from the sea up to Bladensburg and load with tobacco. Commodore Barney had his flotilla there, you recollect, in the war of 1812; and now the merest skiff cannot ascend that high, so completely has that streamlet filled up its bed and raised its bottom up to a higher level. Sir Walter Raleigh went with his fleet into Roanoke inlet. I have

seen sand-dunes in the place where that ship channel was, over which, when I saw it, one could pass dry shod.

Large ships formerly came up to Fredericksburg; and where the upper wharves used to be, a scow can now hardly come. And you have but to look out upon the Potomac, from the windows of the Capitol to see how it is filling up its bed.

Indeed, one has but to look at the delta of the Mississippi, as represented in our common charts, to see how that river has been pushing itself out in the gulf, and raising up for itself a bed from the seas.

The river Po has been levied up, you know, for centuries; and within that time it has raised itself up by the continual deposits of sediment, until it is higher than the villages on its banks.

Now the reason of this is obvious; and it is also perfectly clear, why our rivers should have grown more difficult of navigation as the Country has become settled.

When the Country was an unbroken prairie and forest, the rains as they trickled down from the hill sides, were gathered into little streamlets that were rather discoloured by the freshets than muddied. The earth was unbroken by the ploughshare, and so covered with grass and leaves as to be protected from wash.

But now, a washing rain runs down the newly ploughed furrows, digs out gullies and the streamlets carry off into the Pool, an immense amount of mud, with which the waters of every tributary become loadel—they bear it down to their destination and consequently make the main stream muddy also.

Where the waters of these tributaries fall into the main stream, or where the waters of the main stream fall into the Ocean, there is at the place of meeting of the two waters a line of eddy or still water, and under this line of meeting the sediment is deposited and piled up in the shape of bars. Thus the bar at the mouth of the Ohio; the bar at the Balize; and the bar at the mouth of every river from the Mississippi to the Hudson that empties directly into the Ocean. And these bars are made either of the sediment which the River brings down, or of that which the waves of the Ocean hold in solution and deposit when the two waters meet.

Now if we can scrape this sediment up as fast as it is deposited, we shall prevent these bars of the Mississippi passes from gaining on us further, and we may stop their growth at the mouths of other rivers also.

Such bars as those of the Passes cannot consist of stones or pebbles. They may consist of sand and shells, of ooze, slime, trees, and other fresh water drift. But until they have been beat into hard and compact masses by the surges and waves, and rollers of the sea, they are soft and easily to be removed. Bars that consist of mud are much more easely dredged than bars of sand.

I can recollect the time when seventeen or eighteen feet could

be carried up to New Orleans. Now according to Blunt's Coast Pilot, "the Winds make a difference over the bar at the entrance of the Mississippi river, and the general depth of water is from eleven feet six inches to fourteen feet.

Here is another link in the chain of reasoning, going to show the practicability of deepening the bar at the Mississippi passes by dredging, for those bars are formed of such light stuff, that the agitation of the water caused by the winds there, is enough to dig out two feet and a half at a time. —

The Government has caused the Mississippi river to be straightened, or rather to be made less crooked, by cutting off a bend here and there. The effect of this straightening has been to increase the velocity of the stream, to prevent it from depositing as much sediment above New Orleans as along its old circuitous route it was in the habit of doing, and to cause it consequently to bear more sediment along with it, to be deposited at its mouth. Hence the rapid filling up to which I have alluded.

The Mississippi has slimed with its mud the bottom of the Gulf, many miles out to sea. At the distance of hundred miles and more in one direction and at the depth of 300 feet the bottom of the Gulf is the ooze of the Mississippi River. And the water is bold from the sea right up to the bar.

Hence you will observe that the bars there are entirely different from sand-bars. That River has spread its slime over the bottom of the sea and confined the sand there, in such a manner that the agitation of the waters is not sufficient to bring up shells, sand, calcareous and other deposits to form a cement for the deposits of the River, and to convert its bars into solid beds or indurated banks. These banks are soft mud; vessels are told in the books of sailing directions not to fear striking upon them, for they are often dragged over them, with their keels two or three feet in the mud.

The distance by the River from New Orleans to the Balize is called 120 miles.—For this distance the River has scarcely a perceptible fall, for at certain stages of the Water, there is no difference of level between the surface of the River at New Orleans in front of the City and of the Lakes in the rear, which preserve the mean Ocean level. In this fact, together with the circumstance of straightening the river by cutting off bends, may be seen room for another of those causes, which have operated to increase the bars at the Balize and to lessen the depth of water in the Passes.

We want no human record to satisfy and convince us that the Mississippi has for ages been pushing its bars out further and further into the Gulf; and that as the River has gained upon the Gulf, and pushed the line of meeting between its waters and those of the Gulf further and further out, it has left its old bar behind and pushed a new one further out. It has proceeded of its own

accord, to cut out the old bar, or to deepen the water where the bar formerly was, and to carry the shoal water out to the place for the new bar.—We need, I say, no human records to convince us of this fact, for nature with her own hand has written it down and left it recorded there in deltas and characters that cannot be mistaken.

The gentle force of the water inside of the bar, with its constant abrasion, though slight, upon the bottom is sufficient to cut down through the deposit there to great depths. Hence we see after the river has pushed the bar at its mouth out further into the sea and carried with it the seat of these confluences which operate to cause depositions of sediment in this or that particular spot, that there is nothing to prevent the removal of these old deposites even down to very great depths, by the action of the water itself. For instance, a mile or two up the river where the bar used to be with its fourteen or fifteen feet water, we have now fifty, sixty, and even hundred feet.—Thus showing, that as fast as a new one is formed, the river sets to and digs away the old one.

Cannot art and steam with their powers, and man with his ingenuity assist Nature in a juncture of this sort? In this fact we have proof that the materials of which the bars are formed are not tenacious, that they are not difficult of removal, and that therefore they would yield to the dredge.

I have mentioned that I have known vessels drawing eighteen feet to go up to New Orleans, and if one now, drawing fifteen feet, can with steams and Tugs be drawn through the mud, it is as much. I do not recollect the time when eighteen feet could be carried up, but it has been since I have been in the Navy, which is 25 years. Suppose therefore that eighteen feet could be carried through the mud twenty-four years ago, and that fifteen feet only can now be forced over the best pass. This would give a filling upon the bar at the rate of an inch and a half of sediment a year. What would it cost to dredge up from these bars an inch and a half of sediment in a year? Absolulety nothing in comparison with the advantages to be gained by increasing the facilities of ingress and egress to us from that great commercial mart. I do not know how wide the bar is, that is, how far after a vessel gets on it, she has to go before she gets across it. But judging from what I know of other bars, it would probably be not more than a quarter of a mile. But as the Mississippi is a headstrong river, and will have its own way, let us suppose that the bar in the best pass is half a mile wide. It may be more, it may be less. I assume half a mile merely for the purpose of basing an estimate as to execution.

Now to dredge out a channel three feet deep, two hundred feet wide, and half a mile long, would require the removal of only 176,000 cubic yards of earth or sediment, and after the channels

were once well excavated, it would, according to the assumed rate of deposits, require the removal of some inch or two a year.

I cannot say what should be the cost per cubic yard of removing this sediment. But you will observe from what has been stated that the plan of deepening the bars of the Mississippi by dredging and keeping them open by the continual use of dredging machines, appears not only possible, but so reasonable as to justify the expense of an attempt.

I have not considered any other plan except that of dredging, because I have not the data requisite for going into other plans. Though I am free to say that with such information as I have at present I am disposed to give the preference to dredging over any other that has been proposed.

Respectfully &c.

Honorable (Signed) M. F. MAURY.

PIERRE SOULE,

U. S. Senate.

Impressed with the importance of ascertaining as nearly as possible, the quantity of soil which the Mississippi carries down with it, Lieut. Maury procured daily observations upon the subject to be made continuously for one year at the Memphis Navy Yard. The duty of making these observations was assigned to the master of the yard, at that time Passed Midshipman Robert A. Marr, U. S. N.

Fully alive to the importance of the object in view, Mr. Marr addressed himself to the task with great zeal and fidelity, and produced a series of observations of the highest value and interest.

His first step was to make a survey of the river opposite the city; determine the shape of the river bed, and so obtain one of the elements for ascertaining the quantity of water that daily passes by. The height of the river, and velocity of the current at various depths, from the surface to the bottom, were next ascertained. These, also, were the subjects of daily observation.

Knowing, therefore, the velocity of the current, and the capacity of the channel, the quantity of water passing by daily was then calculated and stated in a tabular form. Specimens of the water were then daily taken and carefully measured: the sediment carefully precipitated, dried and weighed.

Summing up the results thus obtained, it appeared that the Mississippi river, during the year ending March 1st, 1851, had carried past Memphis, 13,709,006,232,791 cubic feet, (equal to 93,135,512 cubic miles,) of water; and that of this, the one two thousand nine hundred and fiftieth part ($\frac{1}{2950}$) was sediment. In other words, that there is suspended in every three hundred and

sixty-nine gallons of river water, at Memphis, mud and sand enough to make a pint of sediment when dried and pressed compactly.

Mr. Forshey, of Louisiana, makes the mean volume of water passing annually in the river by Vadalia to be 12,250,000,000,000 cubic feet, or 83.221266 cubic miles. The Arkansas, Yazoo, Red River, &c., each with its silt and water, comes in below Memphis; and according to the Memphis observations, therefore, the Vadalia volume should be larger.

But if the Mississippi receive these rivers after passing Memphis, it empties all of them into the sea through more than fifty channels, and therefore, nothing like the Memphis quantity passes through any one channel.

Moreover, from a long way above New Orleans to the Gulf, the current is much less rapid than it is at Memphis; and consequently much of the sediment that passes Memphis is deposited before reaching New Orleans. The rising of the levees shows that, and the rate at which the bars at the Passes are carried out to sea, confirms it.

Nevertheless, that our estimates as to the quantity of sediment annually deposited on the bars, and the cost of removing it may both be certainly too large, let us suppose that none of the Memphis sediment begins to undergo deposition until it reaches New Orleans; that between that and the bar of the S. W. Pass, or Pass a l'Outre, or any other, it is every bit deposited; that none of it is carried into the Gulf, and that twice as much is deposited to the square foot on the bar as elsewhere.

Now supposing, moreover — and here again the allowance is most liberal — that the river upon the bar of Pass a l'Outre, through which estimates make all the Memphis waters to pass, is a mile wide, and that the bar reaches a mile up and down the river, and that it be intended to keep open across this bar a channel, the sixteenth of a mile wide — and this width is ample under any circumstances. Supposing all this, we should have, according to the rate of the Memphis sediment, an annual deposite in the proposed channel way across the bar of only 17,828 cubic yards of silt.

Now our Military Engineers estimate five hundred cubic yards a day as moderate work for one dredging machine. Here then, in round numbers, are forty days work during the year for one dredging machine to take up from the bar as much mud as the river deposits on it in a year.

Suppose, notwithstanding all these liberal allowances as to the position of silt on the bar, that the estimates still fall short — that notwithstanding the extravagant assumption that all the water which flows by Memphis goes into the Gulf through Pass a l'Outre, and that it leaves twice as much sediment on the bar as at any other place. Suppose, notwithstanding all these allowan-

ces, each one of which we know to be far too great, that our estimates should still fall short. Increase them, then, ten-fold, and the cost of removing an annual deposit, ten times greater than we have shown it possibly to be, will still fall short of $100,000 per annum. And what are $100,000 per annum when weighed in the balance against a good ship channel from the sea into the heart of the Mississippi Valley? It is absolutely as nothing in comparison with the great public benefits and commercial advantages involved.

Having once excavated a channel way of the required depth, it is easy, with a moderate annual expenditure, to keep it at that depth.

Examinations enough have been made to show that the thing can be done. We are sick of examinations. Within the last fifteen or twenty years there has been examination after examination upon the subject. The result of all has been a report in favor of the work. We have shown that the cost of keeping a channel-way open for the largest ships cannot possibly require the annual removal of more than 178,280 cubic yards of mud and sand. And that in all probability the quantity to be removed will not exceed the one-tenth part of these figures.

Let the trial, therefore, be made. It will not cost as much to make the trial, anything like, as the Government has already appropriated for examining into the subject. To our mind the Memphis observations are conclusive.

There are other highly interesting problems involved in the habits of the Mississippi river, especially in those traits which show the velocity of the current, the volume of discharge, and the quantity of silt.

And we do hope, therefore, that the Government will cause the observations which Lieut. Maury has procured to be made at Memphis, to be repeated at New Orleans and in one or two of the Passes below.

ARTICLE IV.

A PROJECT FOR PROTECTING THE BANKS OF THE MISSOURI RIVER.

BY JOHN H. BLUE, M. D., EDITOR OF THE BRUNSWICKER.

Many of our western rivers run through vast plains of sand and soil, called in common parlance, *bottoms*. This is particularly the case with the Missouri. Were these water-courses left to their simple hydraulic laws, they would plow straight, quiet furrows

through these alluvial lands, and pursue their uninterrupted way to the outlet. But everywhere in the sand and soil are embedded logs and rack-heaps, which never decay, and which as effectually obstruct and change the river-current, as rocks would.

The Missouri has been gradually encroaching on the alluvial bottom, on which Brunswick, Missouri, is built, for some years past. It has generally been conceded that the present town site would finally be washed into the river. Hence our citizens have been building very temporary tenements. But if the bank continues to fall in annually with the rapidity of this year, it is very evident, that the river will soon be encroaching on Main street. And we see no present obstacle to its reaching Broadway, at the foot of the hill, and cutting back into the bluff, until it finds hard rock! Such was its course, when it came in above De Witt, Missouri; and such is always the result, unless it is arrested by some counteracting power.

There will then be no safety in building any where below the top of the hill—a conclusion which few will wish to admit. For all our present property will be depreciated to the lowest value, and besides it would be impossible ever to settle the business men of Brunswick down in any one spot on the Bluff, as convenient and as satisfactory as at present. It behooves us then to consider, whether there may not be some means, by which to prevent the further encroachment of the river.

We have been studying the subject for some years, believing that the present crisis would arrive. We have conversed with a great many intelligent men and engineers; and the result of all our researches is the abiding conviction, that the river may be confined to a particular line of embankment, and a permanent wharf built in front of the present site of Brunswick! This broad assertion may appear incredible and visionary; but let a few facts explain our plan, to which, however, we attach no great claim of originality. Some years since, we understand, there was a fine cotton plantation on the east bank of the Mississippi river, some distance below the mouth of the Arkansas, into which the river was cutting so fast as to threaten its entire destruction. At the suggestion of an eminent engineer, of New Orleans, the proprietor of the plantation, in the fall, when the river was low and his crop laid by, took his negroes and cut long trees, making them into *cribs with bottoms* to hold sand and rubbish, and sunk them at proper intervals along the bank at such an angle, as to arrest the force of the current, from point to point, and to fill the intervals between the cribs with eddy sand. The experiment succeeded admirably, and entirely stopped the further falling in of the bank.

We see the same thing all the time taking place accidentally on our river. Whenever a steamboat sinks, the hold soon fills up with sand, and as permanently controlls the current, *as if it was a rock.* The steamer Naomi sunk in the spring of 1840, at the bend on

the other side of the river, just above Brunswick. A bar along in its wake was apparent in sixty days ; and ever since, the channel of the Missouri has been bearing over on this side permanently. The steamer Dart sunk, some fourteen years ago, in the swift bend below Glasgow. It struck a snag in what was then deep water, and has since formed a permanent sand bar, fifty yards long. The steamer Euphrasia sunk with a load of tobacco in 1841, in sight of Glasgow, producing what is now called the Euphrasia bar, and throwing the channel on the opposite side. The Weston, Capt. Littleton, sunk in 1843 or 1844, in the bend below Dozier's, after burning to the water's edge, with a load of hemp. The water had been cutting in fast into the bank, but stopped, and so remains. The St. Louis harbor bar, which caused so much inconvenience, until counteracted lately by an expensive dike, is said to have been caused by the sinking of a boat, a long time ago. The fine steamer Plowboy, which sunk below Rocheport, in 1848, prevented the river from cutting in any more into the bend. The Little Missouri, which sunk the same year near Sullivan's, below us, made a sand bar which destroyed the woodyard landing. And the Mustang, which sunk last fall near Hibler's, a short distance down the river from Brunswick, has divided the Missouri into two channels, and materially altered its hydrography.

The action of the sea, on the low sandy shores of Holland, has been effectually restrained. We are not sufficiently acquainted with their system of diking or damming, to describe it, nor is it material to our purpose. The accidental sinking of steamboats on our river, and their uniformly filling with sand and becoming a controlling barrier to the current, permanent and immovable as the bluff rock, is a "fixed fact." We have only to imitate nature, and to sink our cribs, *sand-tight*, at the proper places and at the proper angles, beginning at the mouth of Grand river, to make a permanent bank the whole front-length of Brunswick.

An intelligent gentleman from Vicksburg, Mississippi, tells us that a similar plan has been successfully tried there. The Mississippi river had encroached a hundred and fifty yards on the front of the town, year after year, when, four years ago, two large flat boats, heavily loaded with rock, were purposely sunk at the upper part of the falling-in bank. The river has not cut in any more since ; the sand has accumulated some eight feet on the top of the sunken boats, and the spot is now made the regular upper ferry landing.

Some years since, the river was rapidly carrying away "Natchez under the hill," on the lower Mississippi, and a general impression prevailed, that all the town site below the bluff would tumble into the water. By accident, we believe, a flat boat was sunk at the upper part of the falling-in bank, and soon after a sand bank was observed to be forming below it, and the ri-

ver ceased to cut into the landing any more. This suggested the sinking of several other flatboats in a line below, and the citizens had a permanent wharf for a good while, till "once on a time," the whole front began to crack and to careen into the river. Workmen, however, continued to fill up the chasm with rubbish; and by and by, the flats seemed to have gained the lowest depths, where they rested on the bed of the river, and the whole front of *Natchez under the Hill* seems now to be a permanent embankment.

This last difficulty need not occur, in placing cribs in the Missouri river, as we always have low water in the fall and winter season, and the floors can and must be placed at once *below the lateral* sweep of the water current. The cribs thus placed, cannot be undermined; and if the first one is placed high enough up the river to break the first force of the current, which beats against the bank, there is no danger of the water cutting around it. The only thing to be guarded against, is, not to change the angle of the river too suddenly, for fear of throwing sand bars too far out, and thus injuring the landing. But a competent engineer can easily tell what position to give the wooden abutments, so as to control the current all along the front of our town, ribbing the soft alluvial soil with sand walls, as permanent as rock, and saying to the river, which chafes against its side: *thus far shalt thou come and no farther.*

The facts which we have adduced above, are given from memory, and from the information of others. They may not be strictly correct in all their particulars; but many similar ones, it is believed, might be hunted up, all going to prove the general proposition, that a vessel *with a bottom* soon fills with sand in the Missouri river, and as certainly changes the current as a rock of the same size. Spiling has been tried, and will not do, because the water washes around it. Nor will pens nor piers without bottom do, because the rubbish or stone, which is filled in, will be undermined and tumble out. But a succession of large cribs or flats, hewed out of our cotton wood, and sunk at low water mark, would, we are confident, be an immovable barrier. The experiment of putting in two or three at the upper part of a bend which is tumbling into the river, would cost a mere trifle, and would test the value of the project.

The high water is gone, and the banks are falling in no more this year. But we need not "lay the flattering unction to our souls," that the danger is over. The same prediction has been made every year since 1844, and yet this year we have lost more front than ever at this place. We should look at Old Franklin, and learn a lesson in time. We have town lots and property in the bottom, worth hundreds and thousands of dollars, which might be made secure at an expense of some two or three thousands.

The intelligent editor of the St. Joseph Gazette thinks the plan

worthy of serious consideration, and says, he has conversed with several gentlemen of that city, and all agree in opinion that, if the project were carried out, it would keep the banks from falling in. He urges the "city fathers" to take the matter in hand immediately, and do, what they consider the interests of the place require. He says, "it is well known, that they have made several attempts at St. Joseph, and expended thousands of dollars to secure the banks, but the late high water has convinced all that the expenditure has been of no advantage whatever." Our project addresses itself not only to St. Joseph, but to many places and to many interests on the western waters.

At Brunswick, the work cannot be undertaken by the "city fathers," because much of it would be out of the corporation; yet we do not see, why the city might not subscribe stock in furtherance of the object, as every taxpayer is more or less involved in the interests of the success of the enterprize. We propose here a joint stock company who will undertake the job, in consideration of receiving the river front or esplanade, which they will save, and make valuable in the operation—a sufficient bonus, we think, to secure all the stock which will be needed.

(For the Western Journal.)

ARTICLE V.

DAGUERREOTYPEING SIMPLIFIED.

BY J. H. FITZGIBBON, OF ST. LOUIS, MO.

It is a well known fact, that until very recently a veil of secrecy, has been thrown over many of the manipulations of this beautiful art, so as to mystify its operations to the new beginner in such a manner that the more he experimented the more he got lost in a labyrinth of uncertainty and doubt, until at last he abandoned its pursuit, fully convinced in his own mind of the inutility of further prosecuting a system of experiments wherein he could not hope to attain any thing like success. One chief reason of this is the complete want of confidence amongst operators.—A total absence of that *esprit du corps* which should invariably accompany the pursuit of any of the liberal arts or sciences; but, this want of confidence among Daguerreotypists can readily be accounted for by the ease with which almost any person can enter the profession and assume to himself the title of artist. Like the *pro-*

fession of the Law its gates are thrown wide open to all alike who wish to enter; the consequence of which liberality is, that its temple is desecreted and its altars polluted by any pretender that has not the slightest love for the beautiful in either art or nature. Until very recently, if a Daguerrean should by accident put a few drops more or less of acid in his Bromine, or a little Iodine or any other ingredient which is used in the preparation of Quich or sensitive, he immediately announced to the Daguerrean world that he had made a wonderful discovery, and for a consideration varying from ten to fifty dollars was ready to impart his profound knowledge to those verdant practitioners who are thirsting for wisdom. A dozen instances could be adduced of the grasping and insatiate avariciousness of disposition of some of the fraternity who have made and still make money by the sale of their recipes "for removing spots off pictures", "the prevention of pictures from blueing", "How to make chlorid of gold", "To galvanize plates" "To keep dampness out of Iodine", "To make Black Polish", "To take the chemical focus", "To clean Buffs", "How to color pictures" and many other things which new beginners have to pay well for ere they can be properly inducted into the mysteries of Daguerreotypeing. How then can we wonder at the number of inferior pictures, or the hords of indifferent and bad operators that now flood the land in every direction? Where there is no intercommunication, no free interchange of thought or opinion, there can be no confidence between operators, the consequence of which must necessarily be a system of unsatisfactory experiments without producing the slightest benefit to themselves or the fraternity at large. *)

I would here state that ever since I commenced the practice of the profession, I have endeavoured to do away with every thing like mystery and confine myself to the most simple method possible. To my pupils and the community of St. Louis—I leave the question to be answered how far I have succeeded.

In proceeding to elucidate my process, I will divide it into six parts, the first three of which will be confined to plate cleaning; the fourth to coating with chemicals; the fifth to mercurying and chemicals, and the sixth to finishing with general remarks.

First. Take the very best plates **) you can procure and turn

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*) There have lately appeared some valuable works on Daguerreotypeing from the pens of a few of our own artists, containing much useful information, among which are "Hill's treatise on Daguerreotypeing", Snelling's art of Photography and Humphry's system of Photography, also two works, one by S. D. Humphy, published semi-monthly in New York, called the Daguerrean Journal, and another called the Photographic Art Journal by H. Snelling, published monthly.

**) In a former paper I stated what I knew from practicable experience to be the best, and I now reiterate it, notwithstanding the opinions to the contrary of others, that there are no plates equal to those manufactured by the Scovill Manufacturing Company.

down the edges if they are not already turned down, then slightly burn them with the spirit lamp and leave them to cool on a slap; then take your plate and fasten it down on your plate cleaning block, then take two ounces of pure rain water, to which add twenty drops of nitric acid and shake them well together, and it is fit for use. Then take some of the finest or best of cotton cloth or fine carded cotton, prepared on purpose, which comes in rolls; you then take some of the finest rotten stone (some use tripoli). With these three articles your plates must be cleaned. After dusting the rotten stone on your plate, put on a few drops of the acid water, then take a small quantity of the cotton, form it into a pallet and rub your plate with a circular motion, occasionally putting on more acid-water and rotten stone; while the plate is still damp, take another piece of cotton and rub the plate well until you take that entirely off; you must still continue to rub for some time until you feel that it is clean. If you have any doubt about it, blow your breath slightly on the plate, when, if not thoroughly clean, it will shew for itself. After it is thus far cleaned, take your plate off the block, being careful while doing so not to lay hold of any part but the edges. A small piece of cotton is now used to wipe the edges with, so as to remove all foreign substances which may have got on while cleaning, which, when done, the plate is put in the box until you are ready to buff it.

Second: Your buffs, whether hand or wheel buffs, should be kept perfectly free from dampness, as moisture is a great enemy to daguerreotypeing. Heat should be applied to your buff holders, and the first thing to be done every morning upon entering your laboratory should be to apply heat, through means of the spirit-lamp, to your buff holder and keep it there during the day. Two buffs, one made from prepared buckskin, I am in the habit of using, on which the finest rouge which I can possibly procure is powdered after having burned it very well on a piece of sheet iron. The other I cover with a piece of drab cotton velvet, this should be very well rinsed in scalding hot rain water before using it, on this buff put some calcined Lamp-black, commonly called *coal*; after having been well burned in a sand-crucible, buff with the buckskin buff first and then the velvet one to finish on. After putting the plate on the holder, particular care should be taken to remove every particle of dust which may have settled on the plate, by means of a gum blower. You now proceed to buff lightly, first with one buff, then with the other until all the cotton marks are obliterated. The small plates, medium and quarter, should be buffed about five minutes; a longer time is required for the larger ones. The same care should be observed in handling the plates after buffing, as before. You must also be particular to brush the buffs well, at least once each day, and must not let them get clogged up with too much rouge or coal.

Third: Galvanizing is as necessary to plate cleaning as a good

camera is to the successful production of a fine picture. *) There are many fine pictures produced upon plates that are not galvanized; still I can see no reason why the process of galvanizing is not beneficial. It makes the plates more sensitive for an impression and a shorter time is required for the impression; besides imparting a finer tone then those not galvinized. Operators using them have this advantage, that they can keep on hand a greater number of clean plates which are galvanized for a greater length of time in a perfectly clean state than others not so cleaned; for it is a well known fact that plates which are not galvanized will not keep from day to day clean. The same precaution should be observed before galvanizing as before buffing, namely to keep the plate free from dust. Dip your plate in the solution of silver until it assumes a light sky blue—say about one minnte if your battery is in good working order, then take it out and wash it well with pure rain water; then it must be completely dried over the spirit-lamp, you may then put it into the plate box until you are ready to take a picture then you will rebuff it in the same manner as you did at the first. Plates so cleaned will last any length of time and will be as good as if they had been cleaned the day before.

Fourth: Chemicals and coating; there are as many different ways of coating the plates as there are chemicals to bring out the pictures. I shall here, however, confine myself to my own method of coating and to the chemicals I use. Good, tight coating boxes should always be used. I prefer using three of the deepest kind; I cover the bottom of the first box with cotton cloth and spread on it some of the best Iodine so as to entirely cover the bottom. I then cover that with an other piece of the cloth and fasten up the box until I am ready to use it. In the second, I spread over the bottom dry Quick to the depth of about half an inch and immediately fasten up the box. When I use the wet Quick I put one half pint of rain-water and about a table-spoon full of liquid Quick in my coating box **). In the third box I use Iodine as in the first. The benefit to be derived from using the third box is, that you then know the exact proportions of Iodine you are using, whereas if you use one Iodine box, you will find it rather difficult to ascertain the due proportions on your plate—especially in cold weather.

I coat my plates in the following manner, taking care to have them free from all dust spots and of a warm temperature, as they

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*) A small battery (Daniels) is generally used, although some operators are not partial to them.

**) Te liquid Quick, which I use is nothing more than Bromine water which is allowed by our best writers and artists, to be the finest Quick that can possibly be used,—if you can at all manage the working of it, which is very simples. The great error operators fall into is, the making the mixture too strong. One ounce of German Bromine will make two quarts of Quick, I use it as mentioned above. A quantity of it thus prepared will last about two weeks or longer.

come from the buffs. I put the plate first into the box No. 1 and coat it over the Iodine until it is a cherry red: then I put it over the box No. 2 until it becomes of a deep red or just turning to a slight steel or grey color, when I place it over the box No. 3 and coat it one fifth of the first time of Iodine for the dry Quick, and one third for the wet Quick *). When using the wet Quick I coat my plates a little lighter then what I do in using the dry in my dark room. The light is admitted freely while coating, except when coating the second time over the Iodine, when I coat entirely in the dark. After coating, great care should be taken to let no dust get on the plate holder, if it does it is apt to get on the plate in moving about and the picture becomes spotted. Although a north light is preferable, yet I believe good pictures can be taken in any light. Sky lights seem to be all the rage at present, but I believe if operators knew as much about them before they had gone to the trouble and expense of constructing them as they do afterwards, they would not have had them made. In posing my sitters I endeavor to place them in as easy and graceful a position as possible, and by carrying on a conversation until I am ready to uncover the camera tube—generally get a more animated expression of countenance than I otherwise would do.

Fifth: After the impression is taken, put your picture over the the mercury and leave it over about three minutes, I heat up my Mercury early in the morning at a certain point and keep it there during the day.**)

Sixth: Gilding and coloring, are parts of the Daguerreotype process which require great care, if not skill, and either adds to, or takes from the beauty of the pictures.

Take of Hyposulphate of Soda one ounce, put it into a pint of filtered rain or distilled water, when dissolved filter it again when it is ready for use. Pour the solution of Hyposulphate of soda over the plate until the chemicals disappear then rinse well the plate with rain water and pour on the gold solution and with a slow heat gild the picture, keeping the solution in motion to prevent it from staining or gilding too fast. In using the chlorid of gold, put fifteen grains of gold to fifty-two of Hyposulphate of soda in one pint and a half of rain water. In mixing always pour the gold on the Hypo. When the salts of gold are used all that is necessary is to mix one bottle of the salts—fifteen grains to one quart of water and then filter it. I now use salts of gold altogether. In coloring the pictures I believe the less coloring

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*) My dry Quick is composed of Bromine and Lime.

**) I am in the habit of filtering my mercury once a week and of washing my plate holders and shides with a solution of Hyposulphate of Soda about the same time. My rooms are sprinkled, occasionally, with ammonia and a silver plate hangs in my dark room to catch the floating chemicals. My chemical boxes or bottles are never opened in my laboratory.

matter used the better for their appearance. Such is my own simple process given in as concise a manner as possible, and I would say in conclusion that there are many things connected with the art into which I cannot enter in this communication, but will merely remark that the great secret of success in the process is to have all things in order, use the best materials and though last not least have some taste yourself for something more then the almighty dollar and my word for it money will come all the quicker. I have hastily sketched my own method of proceeding for the benefit of those who really love the art and are desirous of practizing it, and also as a guide to my pupils in their manipulations.

ARTICLE VI.

THE MARINE STEAM FORCE OF GREAT BRITAIN.

Great Britain possesses one hundred and forty-seven steam-ships, including three in Canada, and thirty two iron steamers, eleven ranging from 1,547 to 1,980 tons. Of these, four were formerly 76-gun ships, and have now engines of 450 horse power. The largest, the Simoom, of 1,980 tons, has only 350 horse power; the Terrible, however, of 1,850, has engines of 800 horse-power; the Termagant, of 1,547, has engines of 620 horse-power; while the Arrogant, of 1,872, has only 360 horse-power; the Retribution, of 1,641, has 400 horse-power. One of the above eleven, the Penelope, was a 46-gun frigate. Fifteen from above 1,200 and under 1,500 tons, twenty-seven above 1,000 and under 1,200, twenty-three above 700 and under 1,000, nine above 500 and under 700, twenty-seven from 250 and under 500, twenty-two from 150 and under 250, four from 42 to 149; three on the lakes of Canada, one of 406 and of 90 horse-power; and one of 750 and of 200 horse power; twelve packets, 237 to 720, some of which are very fine vessels; 58,643 in commission, and 58,501 tons in ordinary. Of the steam-ships, there are built of iron—the Simoom, 1,984; the Vulture, 1,764, both 350 horse-power; the Greenock, 1,418, and 550 horse-power; the Birkenhead, 1,405, and 556 horse-power; the Niagara, 1,395, and 350 horse-power; the Trident, 850, and 350 horse-power; the Antelope, 650, and 264 horse-power; the packet Lizard, 340, and 150 horse-power; the Bloodhound, 378, and 150 horse-power; the Grappler, 557, and 220 horse-power; the Sharpshooter, 503, and 202 horse-power; the Harpy, 344, and 200 horse-power; the Myrmidon, about 350, and 180 horse-power; the Sphynx and Fairy, about 300, and 110 horse-power; and four other smaller vessels, of 20 to 9 horse-power. Six of the packets are built of iron. Screw-steamers on the stocks, viz., one 80-gun at Devon-

port, one 80-gun at Woolwich, and one 80-gun at Pembroke; in all, one hundred and fifty steamships. Then there is the mercantile steam power. The steam vessels registered in the port of London on the 1st of January, 1851, were three hundred and thirty three; one hundred and seventeen under 100 tons, sixty-four from 100 to two hundred, twenty-six from 200 to 250, twenty-seven from 250 to 300, sixteen from 300 to 350, nine from 350 to 400, ten from 400 to 450, eight from 450 to 500, three from 500 to 550, seven from 550 to 600, three from 600 to 650, six from 650 to 700, two from 700 to 750, five from 750 to 800, three from 850 to 900, one from 900 to 950, eight from 1,000 to 1,500, six from 1,500 to 1,800, eleven from 1,800 to 2,000 and one above 2,000. In Liverpool there were ninety-two steam vessels; twenty under 100 tons, 49 from 100 to 200, twelve from 200 to 400, six from 400 to 600, three from 600 to 800 one of 1,300 tons, and one of 1,609 tons. At Bristol there were thirty-one steam vessels; eleven under 100 tons, fourteen above hundred tons and under 300, three from 300 to 500, two from 500 to 600, one (Great Britain) of 2,936. At Hull there were thirty-four steam vessels; eight under 100 tons, seven from 100 to 200 tons, eight from 200 to 400, eight from 400 to 700, two from 700 to 1,000, and one of 1,320 tons. At Shields there were fifty steam vessels; forty-eight under 100 tons, one of 388, and one of 106 tons. At Sunderland there were thirty-two steam vessels under 100 tons. At Newcastle-upon-Tyne there were one hundred and thirty-eight steam vessels; one hundred and thirty under 100 tons, six from 100 to 300, two from 300 to 500. At Southampton there were twenty-three steam vessels; nine under 100 tons, nine from 100 to 300, five from 300 to 500. At Glasgow there were eighty-eight steam vessels; fourteen under 100 tons, forty-eight from 100 to 300, sixteen from 300 to 700, three from 700 to 1,000, five from 1,000 to 2,000, two from 2,000 to 2,500. At Leith there were twenty-three steam vessels; eight under 100, twelve from 100 to 500 tons, three from 500 to 1,000 tons. At Aberdeen there were sixteen steam vessels; three under 100 tons, four from 100 to 300, three from 300 to 600, five from 600 to 1,000, and one of 1,117 tons. At Dublin there were forty-four steam vessels; three under 100 tons, fifteen from 100 to 300, thirteen from 300 to 500, thirteen from 500 to 800 tons. At Dundee there were ten steam vessels; five under 100 tons, two from 100 to 300, three from 500 to 800. At other ports there were two hundred and seventy steam vessels; one hundred and thirty-nine under 100 tons, sixty-one above 100 tons and under 250, forty-five from 250to 500, twenty-two from 500 to 750, and three from 750 to 1,000. Of the 1184 steam vessels registered at the several ports of Great Britain, 547 are less than 100 tons burthen.

COMMERCIAL STATISTICS.

SUGAR IMPORTED INTO THE UNITED STATES DURING THE YEAR ENDING 30th JUNE 1850.

Whence Imported.	Brown lbs.	Value.	White, clay'd or powder'd.	Value.	Loaf and orh. refin'd	Value
Danish West Indies	1,599,457	$58,526	....	....	.....	....
Hanse Towns	....	....	....	....	3.249	$202
Holland	538,393	31,790	....	....	348,381	22,014
Dutch West Indies	799,562	20,201	....	....	.....	....
Dutch East Indies	1,289,320	37,650	....	....	.....	....
Dutch Guiana	647,157	14,758	....	....	.....	....
Belgium	....	....	9,859	$624	398,547	23,397
England	1,700	57	157,640	6,072	26,406	1,865
British East Indies	30,284	1,494	816	58	.....	....
British West Indies	200,519	5,908	....	....	.....	....
Brit. Amer. Colonies.	201,169	8,084	....	....	.....	....
Canada	8,119	354	....	....	.....	....
French Guiana	270	4	....	....	.....	....
French West Indies	230	8	....	....	.....	....
Bourbon	15,341	342	....	....	.....	....
Manilla and other Phillipine Islands	11,087,349	333,830	86,279	2,507	.....	....
Cuba	127,767,543	4,399,213	16,655,646	711,353	19,321	1,172
Other Span. W. Indies	44,937,652	1,410,052	....	....	.....	....
Hayti	1,148	52	....	....	.....	....
Rep. of Central Amer.	160	5	....	....	.....	....
New Grenada	1,471	69	....	....	.....	....
Venezuala	532,534	17,104	....	....	.....	....
Brazil	7,033,366	292,664	3,067,072	126,325	180	9
China	944,060	27,023	....	....	133	5
West Indies generally	15,015	346	....	....	.....	....
	197,651,819	6 659,543	19,977,312	846,939	796,217	48,664
Candy fr. Hanse towns	1,607	126	....	....	.....	....
Candy from France	6,684	2,825	....	....	.....	....
	8,291	3,951	....	....	.....	....

EXPORTS OF SUGAR OF FOREIGN GROWTH FROM THE UNITED STATES DURING THE YEAR ENDING 30th JUNE 1850.

Whither Exported.	Brown. lbs.	Value.	White, clay'd or powdered.	Value.	Loaf and oth. refin'd	Value.
Russia	365,264	$21,911	1,157,002	$78,216	...	...
Sweden and Norway	377,038	15,295	....	...	...	...
Denmark	77,004	3,176	....	...	...	...
Hanse Towns	2,807,804	109,210	....	...	...	...
Holland	174,667	6,891	....	...	...	...
England	822,264	30,593	....	...	...	...
Gibraltar	352,537	17,165	....	...	...	...
Malta	6,025	300	....	...	...	...
British West Indies	34,416	1,716	....	...	...	...
British Honduras	42,809	2,473	....	...	...	...
Canada	3,935,948	120,902	....	...	79,384	4,283
British Amer. Colonies	1,011,650	43,318	....	...	...	...
France on Atlantic	1,099,369	45,584	....	...	...	...
France on the Mediter.	223,657	15,656	....	...	...	...
French West Indies	83,952	4,420	....	...	...	...
Italy	358,217	15,811	84,056	5,850	...	...
Sardinia	87,548	3,600	....	...	...	...
Tuscany	....	....	4,000	360	...	...
Trieste &c.	....	....	368,999	22,000	...	...
Turkey, Levant etc.	149,034	8,125	....	...	6,768	440
New Grenada	17,472	833	....	...	...	...
Argentine Republic,	....	....	20,028	1,602	...	...
Chili	102,223	6,118	35,598	2,350	199,926	12,500
Africa generally	53,915	231	11,191	821	...	...
S. Seas and P. Ocean	3,300	26,657	....	...	...	...
Total,	12,186,113	476,005	1,680,874	111,202	286,078	17,223
Entitled to drawb'ck	2,960,040	105,191	24,841	2,046	...	...
Not entitled to drawb'ck	264,984	11,509	....	...	...	...
From Warehouse	8,964,089	359,305	1,656,023	109,156	...	...

EXPORT OF SUGAR OF THE GROWTH AND MANUFACTURE OF THE UNITED STATFS DURING THE YEAR ENDING 30th JUNE 1850.

Whither exported.	Brown. lbs.	Value.	Refined Sugar lbs.	Value.
Swedish West Indies.....	...	...	1,100	$100
Denmark.....	249	16	66	7
Danish West Indies.....	1,200	80	67,402	6,287
Dutch West Indies.....	...	...	14,390	1,288
England.....	2,670	166	1,190	110
Malta.....	...	...	5,537	388
British East Indies.....	...	...	1,874	155
Honduras.....	...	...	44,164	3,592
British West Indies.....	9,950	517	13,559	1,274
Canada.....	321,659	15,729	104,768	9,416
British American Colonies..	80,896	3,974	66,249	5,187
France on the Atlantic.....	980	52	225	25
Spain on the Atlantic.....	...	...	942	85
Other Spanish West Indies.	...	...	2,108	195
Fayal and other Azores	...	...	1,941	150
Cape de Verd Islands.....	1,360	102	...	...
Sardinia.....	...	...	29,880	1,955
Turkey on the Levant.....	...	...	42,327	2,735
Hayti.....	...	...	238,772	20,882
Mexico.....	4,100	237	5,199	435
Central Republic of America	694	40	...	...
New Grenada.....	21,280	1,310	46,109	3,952
Brazil.....	2,217	155	...	...
Argentine Republic.....	...	...	523,119	37,947
Chili.....	...	...	1,393,348	173,844
Peru.....	...	...	5,419	462
Equador.....	...	...	2,311	345
China.....	...	...	19,280	1,696
West Indies Generally.....	...	...	320	32
South America Generally...	5,200	312	...	...
Asia Generally.....	...	...	55,566	4,423
Africa Generally.....	6,384	347	69,098	5,929
South Seas & Pacific Ocean.	...	...	29,759	2,160
Total	458,839	23,037	2,786,290	$285,056

COMMERCE OF NEW ORLEANS.

[From the New Orleans Bulletin.]

THE Annual Statement of the New Orleans "Price Current" contains its usual comprehensive and valuable summary of the trade of this city. Its tables are very copious. It sets down the the imports of Specie during the year, at $7,937,119, against $3,792,662 in 1849–'50; $2,501,250 in 1848–'9, and $1,845,-808 in 2847–'8. We copy from it the following, from which it will be seen that its valuation of the receipts from the interior is $106,924,083 for the past year, against $96,897,873 in 1849–'50; $81,989,692 in 1848–'9; $79,779,151 in 1847–'8; $90,-033,256 in 1846–'7; 77,193,464 in 1845–'6, and $57,199,122 in 1844–'5. The increase in Cotton is $6,870,614; in Tobacco $1,570,200; in Bacon, 2,886,683; and in Flour $831,058. This makes an aggregate of $12,158,555 in these four articles, and as the net increase is $10,026,210, it leaves a decrease in all other articles of $2,132,345.

We also annex its valuations for 1849–'50.

VALUE OF PRODUCE OF THE INTERIOR.

A TABLE *showing the receipts of the principal articles from the Interior, during the year ending* 31*st August*, 1851, *with their estimated average and total value.*

ARTICLES.		Amount.	Average.	Value Dollars.	Value correspond'g receipts in 1849–50.
Apples,	barrels	54808	$3 00	174424	111732
Bacon, ass'd., hhd and	casks	48602	60 00	2916120	1533440
Bacon, assorted, ...	boxes	9274	30 00	278220	578820
Bacon Hams, hhds and	tierces	44478	60 00	2668680	870075
Bacon, in bulk,	pounds	23500	7	16450	10452
Bagging,	pieces	72304	12 50	903800	816494
Bale Rope,	coils	107224	7 50	804180	688832
Beans,	barrels	4236	5 00	21180	27921
Butter,	kegs and firkins	54967	5 00	274835	204232
Butter	barrels	2720	25 00	68000	35440
Beeswax,	barrels	230	45 00	10350	14680
Beef,	barrels	36164	10 00	361640	445257
Beef,	tierces	11902	15 00	178800	236970
Beef, dried,	pounds	15300	7	1071	2893
Buffalo Robes,	packs	155	70 00	10850	23270
Cotton,	bales	995036	49 00	48756764	41886150
Corn meal,	barrels	3662	3 00	10986	14264
Corn, in ear,	barrels	42526	90	38273	38447
Corn, shelled,	sacks	1298932	1 30	1688608	1560855
Cheese, boxes,	boxes	78894	3 50	276129	188427

Continued on next page.

ARTICLES.		Amount.	Average.	Value Dollars.	Value corresponding receipts in 1849–50.
Candles,	boxes	80748	6 00	484488	331836
Cider,	barrels	245	3 00	735	2709
Coal, Western,	barrels	700000	50	350000	270000
Dried Apples and Peaches	do	685	3 00	20559	8997
Feathers,	bags	3643	35 00	127575	177000
Flaxseed,	tierces	204	12 00	2448	2170
Flour,	barrels	941106	4 50	4234977	340399
Furs, hhds., bundles and boxes		1289		800000	400000
Hemp	bales	25116	18 00	452088	695840
Hides		104388	1 00	140338	54427
Hay,	bales	48281	3 00	144843	225032
Iron, pig,	tons	152	25 00	3800	500
Lard,	barrels and tierces	115570	24 00	2773680	12900
Lard,	kegs	151931	4 00	607724	4104342
Leather,	bundles,	8490	25 00	212250	907098
Lime, Western,	barrels	37738	1 50	56607	130825
Lead,	pigs	325505	3 20	1041616	28854
Lead, bar,	kegs and boxes	629	20 00	12580	1246200
Lead, White,	kegs	1930	7 00	13510	11353
Molasses (estimated crop,)	glls	10500000	25	2625000	2400000
Oats,	barrels and sacks	479741	1 00	479741	325795
Onions,	barrels	14279	2 00	28558	26048
Oil, Linseed,	barrels	178	35 00	6230	32940
Oils, Castor,	barrels	415	50 00	207250	146370
Oil Lard,	barrels	17157	26 00	446082	353088
Potatoes,	barrels	162922	2 00	325844	32006
Pork,	tcs and barrels	186084	12 00	3433008	5165093
Pork,	boxes	1980	25 00	49500	313900
Pork,	hhds	1231	60 00	73860	558720
Pork, in bulk,	pounds	10513895	5½	578264	504841
Porter and Ale,	barrels	384	10 00	3840	6432
Packing Yarn,	reels	4190	7 00	39330	24786
Skins, Deer,	packs	1119	25 00	27975	34375
Skins, Bear,	packs	7	15 00	105	555
Shot,	kegs	2044	25 00	51100	88700
Soap,	boxes	9484	3 00	28452	29790
Staves,	M.	9000	35 00	315000	210000
Sugar, (estimated crop,)	hdds	211303	60 00	12678180	12396150
Spanish Moss,	bales	5974	6 00	35844	26022
Tallow,	barrels	6164	24 00	147936	97240
Tobacco, Leaf,	hdds	52830	1 20	6327600	4790400
Tobacco, Strips,	hhds	9100	1 50	1365000	1316000
Tobacco, Stems,	hhds	2200	20 00	44000	60000
Tobacco, Chewing,	kgs and bxs	4115	30 00	123450	40420
Twine,	bundles and boxes	3156	10 00	31560	25416
Vinegar,	barrels	89	6 00	534	900
Whiskey,	barrels	157741	8 00	1261928	1059777

Concluded on next page.

ARTICLES.		Amount.	Average.	Value. Dollars.	Value corresponding receipts in 1849–50.
Window Glass,	boxes	16428	5 00	82140	24435
Wheat,	bbls and sks	88797	2 00	177594	115016
Other various articles—estimated at				5000000	50000000
TOTAL VALUE — DOLLARS				106924083	96897873
TOTAL IN 1849–50—				96897873	
TOTAL IN 1848–49—				81989692	
TOTAL IN 1847–48—				79779151	

IMPORTS OF SUGAR INTO THE UNITED STATES.

From the 30th June, 1847, to July, 1850.

	Brown.	Value.	White Clay'd, &c.	Value.	Loaf, Refined, &c.	Value.
1848	248,201,117 lbs	$8,893,654	6,807,080 lbs	$347,052	2,121,628 lbs	$169,111
1849	253,815,485 "	7,793,616	5,103,741 "	221,206	400,015 "	34,074
1850	197,651,819 "	6,659,543	19,977,312 "	846,939	796,217 "	48,664

PRODUCE OF SUGAR IN LOUISIANA.

The following statement of the Sugar crop of Louisiana, for ten years, is taken from the Annual Review of the New Orleans Market, published in the New Orleans Bulletin, of September 6, 1851:

Crop of	Hhds.	Crop of	Hhds.
1841-2	90,000	1846-7	150,000
1842-3	140,000	1847-8	240,000
1843-4	100,000	1848-9	220,000
1844-5	200,000	1849-50	247,923
1845-6	187,000	1850-1	211,203

The disposition of the crop of 1850 is stated by the N. O. Bulletin as follows:

"Exported coastwise, 55,000 hhds, (against 96,000 last year;) taken for the West, 132,500 (against 125,000;) taken for refining in the city and State, 10,000, and consumed by the city trade 12,500. In examining the coastwise shipments we find there is a decrease equal to nearly 2500 hhds to Boston, of 32,500 to New York, of 8,500 to Philadelphia, of 5000 to Baltimore, of 2700 to Norfolk and Richmond, and of 1700 to Charleston and Savannah. The only point to which there has been any material increase is Mobile. There has also been a considerable increase in the amount taken by the West."

LITERARY DEPARTMENT.

Article I.

INFLUENCE OF WRITERS.

BY MRS. MARY R. HALL.

Mighty, indeed, is the influence of him who wieldeth the pen; who seeketh from his fertile imagination and teeming mind to trace out thoughts for the perusal of his fellow men; thoughts, which will make a lasting impress upon the soul, and leave there beams of living light, or tarnish it with spots of dark and fearful hue.

To him is given the power to mould the minds of men, to awaken and call forth to action their sleeping energies, to implant seeds of virtue, to water and nourish the tender germs, to encourage the growth of the fragile plants, until they become deeply rooted, their broad leaves fully expanded, and the whole soul becomes filled with the fragrance of their flowers.

On the other hand, his is the power to instil into the mind debasing principles, to call forth and foster all the dark passions of the soul, to implant within the heart the poisonous seeds of infidelity and vice; to make man a fiend and fitted only for the abode of demons! I know that without reflexion it may be said that such are not the results of literary effort; that the moral, social and religious condition of a nation does not, of necessity, depend upon the character of its literature. But look abroad at those nations into whose dark and benighted souls, no ray from the lamp of literature hath ever shone! Doth the mother there instil into the minds of her tender offspring principles of virtue and religion? Doth reason sit upon her throne, like an angel of light, with outspread wings, soaring high and still higher into the regions of illimitable space, searching out with tireless zeal the untold mysteries hidden there? Doth science with gigantic tread ever dare approach so near, that even her most distant footfall can be faintly heard? Alas, no! all, *all* is dark without, and all within is darker still! Human form alone distinguishes *such* a people from the beasts that perish. Even nature with all its glowing beauties is as a sealed book, they not having the power to solve its mysteries, or to feel the effect of its divine imagery upon the heart.

But we need not go to savage or unenlightened nations for proof of our assertions. Look at those in our own beloved land, whose whole mind is absorbed in devouring the light literature of our day, whose education was thought to have been completed at an early age, and who now devote their time, whenever they read at all, to the perusal of trash, which some have dignified by the name of litera-

ture; look at such, and read their characters in the works with which they are most familiar! Listen to their conversation, and how many remarks could be gathered in a lifetime, worth penning for the perusal of others? I need scarcely mention those who drink in with avidity the foulest streams of pollution, that issue from the press; I need scarcely allude to their corrupted and debased intellects. The poison they have been sipping, has infused itself into their whole system; rotteness hath entered their bones; their flesh wasteth at noonday, and long ere the eve of life approaches, their sun goes down amid the blackened clouds of dissipation and crime!

But turn we from the soul-sickening sight to gaze upon one whose chief delight has been, to peruse works of a highly moral, intellectual and religious character. His whole soul is filled with elevated sentiments, which kindle and glow with intensity, until they become indellibly stamped upon every lineament of his face; his views are enlarged and exalted, and one might as well attempt to hamper and confine the four winds of heaven as to draw into a narrow compass his aspiring mind. Refined in taste and manners, his conversation is chaste and instructive as from the storehouse of his memory he draws rich treasures so wisely garnered there; mingled with brilliant conceptions, the fruits of his own imaginative powers.

How necessary then, that every one who attempts to write for the perusal of others. should study well the character of his productions, and their probable influence upon immortal minds. To write without any definite object in view, merely to pass away time, or fill up a vacuum in the literary sheet, is an unworthy act, and can result in no possible good to author or peruser. Too much cannot be written upon subjects calculated to elevate and ennoble the mind; still, he who wields the pen, must feel every fibre of his heart alive to the subject he has chosen; he must feel its power upon his soul, as the breath of inspiration calls it forth to action; else all his effort to enlighten or interest others will prove unavailing. There is a strange, sympathetic chord that vibrates from heart to heart; and where an author has thrown his whole soul into a production, it can scarce fail to produce the effect he desired.

The world is full of books, and yet the teeming press is constantly issuing more; and how many of them had better never have had existence, is not an easy matter to determine.

I would not be understood as condemning all works of fiction; on the contrary, I *approve* of a certain class of such literature. A moral or religious narrative, whether it be strictly true, or whether the writer has drawn upon his own imagination, to supply characters, may have a mighty influence upon the young, in leading their minds into the right channel, strengthening their desires and resolutions to be virtuous and upright; stimulating

them to acts of disinterested benevolence, and awakening noble impulses within the soul. But care should be taken, that virtue appears in her own simple garb of innocence; while vice is arrayed in her blackened robes of pollution and crime. To array vice in fascinating attire, to deck her with jewels, to disguise her that she may allure the unsuspecting by her assumed charms; should be studiously avoided by all writers of fiction. The improvement and elevation of mankind, the full development of all the energies of the soul, the extermination of every vice, the cultivation of the heart, the promotion of the revealed truths of religion; all this, and more, should be the aim of every writer.

Woman, too, should aid in this great work of reform; she may well become a co-operator with man, and with her pen, help to pull down the strongholds of vice and establish upon its ruins the noble structure which piety and virtue alone can rear. God has endowed her with gifts of too great value, to be entirely expended upon productions of a light character; any subject, where the moral, social, intellectual or religious improvement of mankind is concerned, is adapted to her capacity; and without stepping aside from her path of retired modesty, in which it should ever be her glory to move, she may, with perfect safety, pen down thoughts, which will not only be instructive to her sex, but stimulate them to works of love and holy action.

But there is one thing essential to an author, that his productions may have their just weight upon the public, and that is *character*. Let it once be known that a person marks out a path for others, in which he cares not to walk himself, though it lead direct to heaven, yet his influence is in a moment lost. Though he write with the pen of an angel, thoughts that seem pure and holy as those of a seraph, if it be known that his morals are corrupt, that his brilliant conceptions emanated from a debased intellect, that his heart is polluted by the foul touch of vice, and the virtuous will look upon his productions as a hypocritical invention, not worthy the name of pure.

In consideration of what has already been said, I would merely add that the West is a broad field for literary effort. Our population consists of a mingled mass, from all quarters of the globe, each clan or party bringing its own peculiarities, and clinging tenaciously to its former manners and customs. Here are noble minds to mould and train, and if the character of a people depends so much upon its literature, it becomes us to elevate our standard to the highest point of excellence; to put forth every effort to foster and encourage all that is noble and good; to plead the cause of education and religion in our midst; to frown down immorality and vice, in whatever garb they appear; in short, to bind together in an unseparable union, a people, whose object it shall be to press forward to the highest mark of intelligence and virtue.

Here then is a work, which will call forth many a laborious effort to accomplish; for "line upon line," must be written, "precept upon precept," be given, ere we can gain the point we desire. But let no one become discouraged, for the object is noble and attainable; and though single efforts may seem useless and unavailing, yet taken together, they will form a mighty current, which opposition will endeavor vainly to oppose. It then becomes a duty for every one to whom God has given power, to bear a part in striving to improve the condition of mankind, until the light which shall arise in our midst, shall shine forth as the sun at noonday, while ignorance and superstition take their flight to be known no more forever.

KEOKUK, Iowa, August, 1851.

ARTICLE II.

THE MORAL POWER OF INDIVIDUALS.—No. II.

RANDOM THOUGHTS BY AN OCCASIONAL WRITER.

"England expects every man to do his duty."—Lord NELSON.

The battle of Trafalgar was fought on the 21st October, 1805, between Lord Admiral Viscount Nelson commanding the British fleet, and Admiral Villeneuve commanding the united naval armaments of France and Spain.

The star of Napoleon was at that time just in its culmination. He it was that had resolved to humble the power of Britain; and as the initiatory step in the process, was about to sweep her navy from the ocean. Of course, the contest was one that nearly concerned the honor of the British arms, if not, indeed, the fate of the British empire. The spirit of Nelson was roused by the pending crisis in the affairs of his country, and swelled out above the scene with all the noble ardor af his unrivalled military genius.

There are no conceptions of ancient or modern origin, more distinctly stamped in my opinion with the energy of a great commander, than are to be found in the orders issued from the masthead of the Victory, the British Admirals flag-ship, on the eve of this engagement: The Captains are directed each "to look to his particular line as his rallying point." If at any time "the signals should not be clearly understood, no Captain can do very wrong to place his ship along side one of the enemy." To the seamen and marines the awful appeal was couched in words like these: *England expects every man to do his duty.*

The British triumphed, but only after one of the most fearful

struggles in the annals of naval warfare. Nelson did not feel at liberty to shrink from any peril he had enjoined upon the humblest seaman. The Victory was consequently thrust in the heat of the fight, and closed yard-arm and yard-arm with the foe. More than once during the dreadful encounter did the blaze of her guns set her antagonist on fire. Thus fighting and thus cheering on his countrymen to maintain the dubious day, Nelson was destined to fall.

After reading, an evening or two since, the account, which Bisset has given us of this battle, and laying away the book, my mind frequently recurred to the subject, which was rendered more touchingly interesting, by the fact that it was the last act in the drama of the great and splendid life, there offered up upon the altar of its country. And I thought that in the whole moral and physical world, there is no spectacle more sublime or beautiful, than that of a human soul moving forward in its course, regardless of opposing obstacles, defying danger and braving death in the discharge of duty. Were proofs required, could a stronger one be presented, that there is within us a something, that in its nature rises above the merely animal, and spurns with divine superiority the assaults of the base material world.

The battle of Trafalgar was an uncommon event; and our minds readily assent to the proposition, that at such a time and on such an occasion, the slightest disregard of duty would have been entirely inexcusable. But if there be so much worth and beauty in a sentiment on a great occasion, it may be well to consider, whether it is even proper to neglect it. And I apprehend that altho' an unflinching adherence to duty may not in the general shine forth with such attracting lustre, as it does in the Legislative Hall, the Executive Council, or on the field of battle, when vast interests are involved, and public attention is rivetted on the issue, yet in every man, high or low, and on every occasion, great or small, it will be found after careful scrutiny, to constitute the brightest ornament of the actor and the action.

Man is the only being on earth whose motives or conduct can exert any material influence on his fellows. Of all its other animated existences, not one can aspire to a thought that concerns the interest of its kind. They live and perish; and time takes no note of their advent or departure from the stage of life. They leave no influence behind them of good or ill. Not so with man. He is formed for social enjoyment, and for moral and intellectual improvement. His powers, susceptibilities and sympathies, not only stimulate him constantly and urgently to higher states of personal happiness; but extend beyond the sphere of his individual being, and lay hold with unconquerable energy upon all the social relations. There is probably not in the whole world, a single individual whose existence might be stricken out of the great volume of human life, without diverting its course or changing its char-

acter, to a greater or less extent. He has impressed his image on the soft and delicate surface of social being; his motives, thoughts and feelings, have entwined themselves with its unnumbered mental ramifications; his position and relation, his teaching, action and example, have woven themselves into its moral constitution; have become part and parcel of its very existence; and there they will remain; and there they will continue to operate, if not seen, or not understood; not unfelt, whether in time or eternity.

In whatever sphere he moves, whatever place he fills; whatsoever reputation he shall acquire, man never ceases to exert an influence on the condition of his fellow men.

This is the great distinguishing feature of man when compared with other mortal creatures, his power to bless, his ability to curse his race.

With susceptibilities so large, powers and influences so various, and responsibilities so important, every human soul is destined to run the career of life and pass away. Though the period allotted to a human life is comparatively short, when protracted to its utmost limit—scarce a dot upon the immeasurable surface which stretches away in the future—yet when it is closed, *an influence is always left behind;* and in many instances, that influence is such, as to add to the momentum of good or evil which is contending for supremacy in the world, an impetus which no mortal mind can estimate.

No one who has ever so imperfect a knowledge of the operation of moral causes, will question the justness of these remarks.—Should any one be inclined to do so, let him suspend his judgment till he has carefully perused the accounts which history gives us of the transactions of Sesostris, King of Egypt; let him trace the history of Alexander, the Macedonian; or that of the valiant impostor of Mecca; pursuing the entire chain of events which follow in consecutive order, from his ignominious flight as a miserable outcast and fugitive heretic, up to the permanent establishment of his dynasty, and their final climax in the gorgeous splendors, magnificence and power of the Saracen Empire. Let him sit down in the streets of Amiens, and listen to the first sermon of Peter the Hermit in favor of the crusades. Regarding this as a motive power, let him pause a brief space and contemplate the vastness of that motive power, when measured before his view a few years afterwards, by the spectacle of all Europe, convulsed as with the throes of an earthquake, "hastening to precipitate itself on the shores of Asia." He may then, if not satisfied, add to his reflections such as will be suggested by the sudden elevation of Napoleon Buonaparte from nothing to be *of and in himself* the greatest among the powers of Europe; dictating to her princes, and disposing of their crowns as petty jewels among his household.

Had the influence of the Corsican been differently exerted, had he followed the example of Washington, and settled the peace of

Europe on the solid basis of Republicanism, he would have left a better name to after times: but never could he have more fearfully impressed our minds with the power which a single spirit may exert upon the world, or the dreadful responsibility under which a reckless mortal, abusing the sacred trust exalted talents confer, may trample on all the rights of his fellow men.

Let him then, behold on the other hand how the power to destroy is at the same time the power to save; and how all history is teeming with the benificent influence of individual virtue and talent.

Demosthenes for a long time maintained the glory of Athens against the despotism of Philip.

The Theban Republic was reared up almost by the single hand of Epaminondas.

Alfred, like a guardian angel, staunched the wounds which anarchy and riot had opened in the bosom of his country; and instead of the wildest confusion and disorder, first gave to Britons the gentle reign of law and justice.

Sweden never had but one visitation of true national greatness, and that she drew from the short life of Gustavus Adolphus.—This virtuous monarch heroically struggled, and died a martyr for the civil and religious liberties of his people, and his name is destined to live in the gratitude of their descendents to the remotest ages.

But why name these? The memories of the great and good, a mighty host, are ever present to our minds. The Solons, the Numas, the Tells, the Howards, the Franklins and the Washingtons, not to mention a nameless million whose deeds are not chronicled, who have gone down to the grave, in all countries and times, it may be,

"Unwept, unhonored and unsung,"

but whose lives, under the providence of God, were devoted to the good of man, and the light of whose blessed influence did not cease to shine upon the earth, when the luminaries that emitted it became extinct.

The philosophic historian marks the traces of events, often deemed unimportant at their occurrence, and logically deduces consequences from them, as giving form and pressure to society in distant periods of time.

In view of the great moral truth that the principles of *good* and *evil* are waging an incessant warfare on each other; and while the former is laboring to relieve the wants and elevate the condition of the human race, the latter is not less active in dragging it down to the regions of despair: he must be a wretch indeed, unworthy of the name of man, who does not feel his bosom throb with emulation to array himself under the banners of truth and light, resolved to accomplish something, if possible, for the benefit of his species.

Small, very small indeed, must be the number of those who un-

der such circumstances, can deliberately take sides with the enemies of good order and social well being.

But there are unfortunately too many in every community, who seem not to appreciate fully that moral power which they are severally capable of exerting; or who do not recognize the individual duty of maintaining, on all occasions, the cause of right and justice.

We have seen how much of good or ill a single person has often effected.

Let us estimate if we can, what the result would be if the united moral energies of several thousands of persons were poured forth, with unremitting ardor and concentrated force, on any given field of operations.

Nay, let us go further, and suppose a case in which the large majority of a community have combined their efforts to remove every cause of evil and promote every good work around them.

That such an array of moral power is no where to be found, is quite enough to account for all the confusion and disorder resulting from the conduct of men.

Here would appear to be some fatal defect in our systems of education.

Mankind must be made to understand that having a separate existence, they should dare to maintain a separate character and dignity; that to plead the want of all ability is merely to assert a very shallow falsehood; while to concede the ability, however small, and neglect to employ it, can be attributed to nothing else than the basest pusillanimity.

That moral power may be greater in one person than another, is unquestionably true. In the economy of nature all rivers and mountains are not of the same magnitude, "and one star differeth from another star in glory." But are we thence to infer that any have been made without purpose? Certainly not. All are intended by Heaven to fill their own places, and do their own work. And in the great moral battle, we are fighting for the regeneration of the world, the cause of humanity "expects every man to do his duty."

To my youthful reader just entering, with sentiments of honorable ambition, on the theatre of life, I would say, in view of the trials and difficulties which await him, "he can never do very wrong to direct his course where the signal of duty points, even though the signals of fame and fortune should flame in a different direction."

To the man of years, I need not observe that achievements ever so brilliant in the eyes of the giddy crowd, bring no gratification to the decline of life, when their memory is mingled with doubts

of the purity of our motives. Nor need I speak of the consolations of a well spent life—the prospect of a happy immortality.

"O, what concerns it him whose way,
Lies upward to the immortal dead.
That a few hairs are turning gray,
Or one more year of life has fled.

Press onward through each varying hour,
Let no weak fears thy course delay,
Immortal being, feel thy power,
Pursue thy bright and endless way.

CHRISTIAN EXAMINER.

ART. III.

GERMANY—ENTHUSIASM.

FROM THE FRENCH OF MADAME DE STAEL.

BY BERNARD A PRATTE, ESQ.

Many persons are prejudiced against enthusiasm; they confound it with fanaticism, and it is a great error. Fanaticism is an exclusive passion, the object of which is an opinion; enthusiasm rallies universal harmony—it is the love of the beautiful, the elevation of the soul, the enjoyment of devotion, united into one sentiment, which possesses both grandeur and calmness. The meaning of this word, with the Greeks, is the most noble definition of it: enthusiasm signifies *God in us.* Indeed, when the existence of man is expansive, it has something of the divine. All that which prompts us to sacrifice our own well-being, or our own life, is almost always enthusiasm, for the straight road of egoistical reason, must be to take itself as the object of all its efforts, and to esteem nothing else in this world but health, money and power. Certainly conscience is able to conduct the coldest character into the path of virtue; but enthusiasm is to conscience what honor is to duty. There is within us a superfluity of soul which it is sweet to consecrate to what is beautiful, when that which is well is accomplished. Genius and imagination also feel the necessity that we should care a little for their well-being in this world; and the law of duty, how sublime soever it may be, cannot make us enjoy all the mysteries of the heart and of thought. We cannot deny that personal interests press man upon all sides; even in that which is vulgar there is a certain enjoyment of which many persons are very susceptible, and we often find the traces of ignoble inclinations, under the appearance of the most distinguished

manners. Superior talents do not always protect us from that degraded nature, which silently disposes of the existence of men, and forces them to place their happiness beneath themselves.—Enthusiasm alone can counteract the tendency towards egoism, and it is by this divine sign that we must recognize immortal creatures. When you speak to any one on subjects worthy of holy respect, you first notice whether he experiences a noble shuddering, whether his heart beats with elevated sentiments, if he has entered into correspondence with the other life, or whether he has only sufficient mind to serve him in directing the mechanism of existence. And what is a human being then, when we see in him only that prudence, the object of which is his own advantage? The instinct of animals is worth more, because it is sometimes generous and proud; but that calculation, which seems to be the attribute of reason, ends by making one incapable of possessing the first of all virtues, devotion. Among those who endeavor to turn exalted sentiments into ridicule, many are however very susceptible to their attack. War, undertaken through personal views, always procures some of the enjoyments of enthusiasm; the excitement of a day of battle, the singular pleasure of exposing one's self to death, when all our nature commands us to love life, must be attributed to enthusiasm. Military music, the neighing of horses, the explosion of powder, the crowd of soldiers dressed in the same colors, moved by the same desire, forming under the same banners, cause one to experience an emotion which triumphs over the conservative instinct of existence; and that enjoyment is so great, that neither fatigue, nor suffering, nor perils, can deter the soul from it. Whoever has lived that life, loves none other. The goal, when reached, never satisfies; it is the action of risking one's self, which is necessary, it is that which fills the blood with enthusiasm; and, although more pure when in the soul, yet it has something of a noble nature in it, even when it may have become an impulse almost physical. *Sincere enthusiasm* is often accused with that reproach which can be charged only upon affected enthusiasm. The more beautiful a sentiment is, the more odious is a false imitation of it. To usurp the admiration of men, is the most culpable of all things, for you dry up in them the fountain of good sentiments, in making them blush for having experienced them. For nothing is more painful than the false sound which seems to come ever from the sanctuary of the soul; vanity can seize all that which is external, nothing but presumption and disgrace will follow; but when she undertakes to counterfeit the innermost sentiments, it seems to violate the last place of refuge where we hope to avoid her. It is easy, however, to recognize the sincerity of enthusiasm; it is so pure a melody that the least discord destroys all its charm. A word, an accent, a look, express the concentrated emotion of a whole life. Those persons whom we in this world call severe, have frequently in themselves some-

thing exalted. That force which subjects others may be but cool calculation; that which triumphs over itself is always inspired by a generous sentiment. Far from fearing the excesses of enthusiasm, it has generally a contemplative tendency, which injures the power of acting. The Germen are a proof of this. No nation is more capable of feeling and of thinking; but when the moment comes for deciding what step to take, the extent of conceptions injures the decision of character.

Enthusiasm and character differ in many respects; one must choose his goal by enthusiasm; but character must lead him to it. Thought is nothing without enthusiasm, action nothing without character; enthusiasm is everything for literary nations, character is everything for acting nations—free nations need both.

Egoism takes pleasure in speaking incessantly of the dangers of enthusiasm. That pretended fear is indeed a derision. If the skilful ones of the world would be sincere, they would say that there is nothing which suits them better, than to come in contact with those persons to whom so many means are impossible, and who can so easily renounce that which occupies the greater part of mankind. That disposition of the soul has strength notwithstanding its mildness, and he who feels it learns to inhale from it a noble constancy. The storms of passions are quelled, the pleasures of self-love wither; enthusiasm alone is unalterable. The soul itself would be weakened by physical existence, did not something proud and animated rescue it from the vulgar ascendency of egoism. That moral dignity which nothing can attaint, is that which is most admirable in the gift of existence: for it, when grieved the most, it is still beautiful to have lived, as it would be beautiful to die.

Let us now examine the influence of enthusiasm on intellect and on happiness. These last remarks will terminate the current of thoughts, in which the different subjects which I was compelled to investigate, have led me.

INFLUENCE OF ENTHUSIASM ON INTELLECT.

This chapter is in some respects, a *resumen* of all my work; for enthusiasm being the truly distinctive quality of the German nation, we can judge of its influence on intellect, from the progress of the human mind in Germany. Enthusiasm imparts life to that which is invisible, and interest to that which has no immediate action on our well being in this world; there is then no sentiment more proper in the search of abstract truths; indeed these are cultivated in Germany with a remarkable ardor and loyalty.

Those philosophers whom enthusiasm inspires are perhaps those who in their labors have more patience and exactitude; they are at the same time those who think least about shining; they love Science for its own sake, and consider themselves nothing, the moment that the object of their worship is in question. Physical

nature follows its invariable course through the destruction of individuals; the thought of man takes upon itself a sublime character, when once he considers himself from a universal point of view. He is then serving in silence the triumphs of truth. And truth is, as nature, a force which acts only by a progressive and regular developement. It can be said with some degree of reason, that enthusiasm leads to a systematic spirit; when we hold fast to our ideas, we would refer everything to them; but generally it is easier to treat with sincere opinions than with opinions adopted through vanity. If in our relations with men we had to do with that only which they really think, we would easily understand one another; it is that which they feign to believe that produces discord.

Enthusiasm has often been accused of leading us into error, but perhaps a superficial interest deceives us a great deal more; for to penetrate into the essence of things, an impulse must excite us to occupy ourselves about them with ardor. Besides in considering human destiny in general, I think we can affirm that we never meet with the real and true save by elevation of the soul; everything which tends to degrade us is false, and whatever may be said to the contrary, it is to vulgar sentiments that the error must be charged.

Enthusiasm, I repeat it, resembles fanaticism in no way, and cannot like it, mislead one. Enthusiasm is tolerant, not by indifference, but because it makes us feel the interest and beauty of all things. Reason does not substitute happiness for that which it takes away; enthusiasm, in the revery of the heart, and in the extension of thought finds that which fanaticism and passion confine to a single idea or to one object. That sentiment, by reason of its universality is very favorable, both to thought and to imagination. Society develops the mind, but it is contemplation alone which forms genius. Self-love is the moving power of countries where society dominates, and self-love necessarily leads to mockery, which destroys all enthusiasm. It is amusing enough, we cannot deny it, to perceive the ridiculous, and to paint it with grace and liveliness; perhaps it would be better to deny ourselves this pleasure, but after all it is not of that kind of mockery, the consequences of which must be most feared; that which attaches itself to ideas and sentiments is the most dreadful of all, for it insinuates itself into the source of strong and devoted affections. Man has great power over man, and of all the evils which he can inflict on his fellow man, the greatest perhaps is to place the phantom of the ridiculous between generous emotions and the actions which these can inspire. Love, genius, talent and even grief, all these holy things are exposed to irony, and we cannot calculate to what point the power of this irony will extend itself. There is something piquant in wickedness; there is something weak in goodness. The admiration for great things can be dis-

concerted by a jest, and he who attaches no importance to any thing, seems to be above all things. If then enthusiasm do not protect our heart and our mind, they are taken in on all sides by this abandonment of the beautiful, which unites insolence with levity.

Social spirit is such, that frequently we command ourselves to laugh, and still more frequently we are ashamed to weep. Whence comes this? From the fact that self-love thinks itself more secure in hilarity than in emotion. One must depend a great deal on his spirit, to dare to be serious in the face of mockery; it requires a great deal of force to show sentiment, which can be easily ridiculed.

Fontenelle said: "*I am eighty years of age, I am French, and in all my life I have never exposed the least virtue to the least ridicule.*" This presupposed a profound knowledge of society. Fontenelle was not a sensitive man, but one of great mind, and whenever endowed with a superiority of any kind, we feel the necessity of that which is serious in human nature. It is but the common people who would wish that the bottom of all things were sand, so that no man could leave a trace on earth more lasting than theirs.

The Germans, at home, have not to contend against the enemies of enthusiasm and in this respect they possess a great advantage over distinguished men in other countries. The mind by contest becomes sharpened, but talent needs confidence. To experience the inspiration of genius, one must believe in admiration, in glory, and in immortality, and that which makes the difference of ages between them, is not nature who is always prodigal of the same gifts, but the predominating opinions of the epoch in which we live. If the tendency of that opinion be towards enthusiasm, great men spring up on all sides; but if excitement to noble efforts be discouraged, then there remains nothing in literature save judges of the past. The terrible events of which we have been the witnesses, have chilled our souls, and all which appertains to thought seems dark by the side of the omnipotence of action. The diversity of circumstances has brought minds to support all sides of the same questions; and the result is that we do not believe in ideas, or at most we consider them as mere means. Conviction does not seem to belong to our age, and when a man says that he is of this or that opinion, we understand it to be a delicate manner of indicating that he has this or that interest. In that case the most honest of men form for themselves a system which changes their idleness into dignity; they see nothing can be done with nothing; they repeat with the hermit of Prague, in Shakspeare, that *what is*, is, and that theories have no influence over the world. Such men succeed at last to render what they say true, for with such a manner of thinking they cannot influence the others; and if mind consisted in seeing only the pro and the con

in all things, it would cause objects to revolve around us in such a manner that it would be impossible on so vascillating a ground to walk with a firm step. We see some young persons, ambitious of appearing free from the influences of enthusiasm, affect a contempt for exalted sentiments; they think that thus they show a precocious strength of reason, but they boast of a premature fall. They are, as to talent, like the old man who was asking if love still existed. The mind void of imagination would like to disdain nature herself were she not the stronger of the two. A great injury without doubt is done to those who are animated by noble desires, by incessantly opposing to them all the arguments which necessarily trouble the most confiding hopes; nevertheless, good-faith does not weary itself, for it is not what things seem, but what they really are that occupies it. Whatever atmosphere environs us, never has a sincere word been completely lost; if there be but one day of success, there are ages for the good that truth can accomplish. Each of the inhabitants of Mexico in passing on the high road, adds a small stone to the grand pyramid which they are building in their country. No one will give it a name, but each one will have contributed something, in the erection of that monument, which will survive them all.

NOTE.—A book on the Genius of Germany, (in which Madame de Stael had poured out, and, as it were, filtered drop by drop all the springs of her soul, of her imagination, and her religion,) appeared at the same time in France and England, and excited the attention of all Europe. Her style, especially in the work on Germany, without lacking the splendor of her youth, seemed to be imbued with lights more lofty and more eternal, in approaching the evening of life and the mysterious shrine of thought. It was no longer painting, nor merely poetry; it was perfect adoration; the incense of a soul was inhaled from its pages; it was "Corinne" become a priestess, and catching a glimpse from the verge of life of the unknown deity, in the remotest horizon of humanity. About this period she died in Paris, leaving a bright resplendence in the heart of her age. She was the Jean Jaques Rousseau of women, but more tender, more sensitive, and more capable of great actions than he was—a genius of two sexes, one for thought and one for love—the most impassioned of women and the most masculine of writers in the same being. Her name will live as long as the literature and history of her country.—LAMARTINE.

Art. IV.

ON THE EVERGREEN OF OUR FEELINGS.

From the German of Jean Paul Richter.

"How narrow the warm life is, and how broad its winter side! Can'st thou reproduce the raptures which overwhelmingly and with promises of immortality ruled in thy heart, when they are gone with the objects which aroused them? How much of the happiness, which a landscape, a fortune, a piece of music, an hour of friendship and love has afforded still remains lingering in thy memory? They are at the most warm *shadows* of the past time; a faint after-glimmer is attached to the revived object, and the rapture, which previously shook thy heart so powerfully, excites only a gentle after-trembling full of longing, which is indeed the living witness how little thou hast retained. While we enjoy in memory the continual work of repetition for the outer world of the senses, for the inner world of the imagination, and while the train of ideas within the head have their rainbows by their side, we form ourselves internally, also fan the flames of the heart, like mysterious bodies, shadows of ourselves and shadowy sketches. But when out of a complete fiery spring season of life a sudden close-pressing memory and a slight amount of after-feeling remains, as out of the paradise of magnetic slumber, after one is awakened, it must be confessed, the heart has no echo. Only a strong feeling of pain reproduces itself firmly with all its magnitude in the memory; the lock of hair and the clothing of the lost one, bring again perhaps the first grief in full strength, although the curl and the clothes of a beloved person renew only a little of the rapture of past time, therefore perhaps, without art, the grief of spirit is stronger and more abundant than the charm of the spirit, as the pain of corporeal feeling is more piercing than any enjoyment of the same. And so our wintry disposition often lasts much longer than our summer disposition."

— One might easily suppose after these "crow feet or quotation marks" that I would refute the whole, but I prefer to subscribe to the same, and indeed to add thereto even the following: When a human being can build up purely again, and vault over within his head even only once a day a heaven for his soul, in which it lives, moves and has its being, as many heavens stand open for him in a year, as admitted the heretic, Basilidos, namely, 365, and then the object which made the first heaven would be as unnecessary as the teacher of a science is unnecessary in order to sustain a continued enjoyment, which he afforded with the first instructions. Perhaps it also belongs to the irresistible claim of the higher, tenderer love, that the dearly beloved retains a continued feeling of a mild warm stirring air of the festive hour at heart, without any painting of memory, and even at a distance from the

object; as at times in some heavenly evenings of Spring all the streets of the City, in which there is no garden growing, are glowing with an intermingled blooming atmosphere, which the whole warm flowery environs inhale. This gentle peculiarly continued enjoyment of love without the object, and without the hot sun-glance of rapture, is, like the incessant undulations within the breast occasioned by the breeze of an ether-blue-day and a fresh, green, inimitable landscape.

However, I can offer a consolation as an answer to all former complaints on the subject of thinking about feelings, the consolation of their resurrection through art. When the object disappears, and after it, the animated hour which it afforded, expires, then art presents itself to us, and wakes up what had died.—Painting gives us back the object and with it the animated hour—music gives inspiration and with it the object—poetry gives both alternately.

When painting retains steadily the wild fire of the moment, then the charming landscape, the charming eye, the charming circle incessantly cast their glances at thee, and thy highest enjoyment returns every day, and the sun stands still before the painter (otherwise than before the life-destroying Joshua) only to illumine warm life continually.

What hours and souls and bodies range themselves in order to prepare for thee only, an inimitable internal festival, which thou receivest from invisible hands! Weep as thou only wilt, abundant and blissful tears; music echoes thy heart to thee and brings to thee all thy tears again.

And then in fine, thou, good poetry, givest back in a lively manner—with all the riches of both the sister arts—that which enraptures and glorifies mankind, which can reproduce every memory that has become almost obliterated, and in the light of thy evening beams, every morning ray of life returns. To a man, who bears the extraordinary hours of life gloomily in his breast, but without the power to animate and illuminate them again, it repeats the images which surprized him, the tones which he never would forget, and the earth and the heaven which only on one occasion, was presented to him in such a manner.

In its outlines of life, the inequalities of the same vanish, like the shadows on the moon when it round itself and conceals its mountains. Yet, it opens not the old paradise, which is closed behind us, but a new one into which we can enter, and on its light clouds, like Ossian's spirits on theirs, find again a heaven for our souls. Therefore complain not over the fleetness of enjoyment, since art lends you its eternity. Or if thou complainest yet, that the rapture and inspiration last, only so long as the object which calls it into existence, abides, then gladden and inspire thyself with an object, which can never depart from thee, for it is there-

fore at the same time, the grandest and the finest, and gives to thee all things, itself and thyself.

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Another complaint, akin to the above, upon the decline of feeling with years, I gladly refute, as also every unnecessary fear of men, and if it can only be done, gladly I gain the sun side of all the moons of our life.

A narrow heart scarcely increases, but a wide heart grows still larger; the one contracts years, the other expands them. Man only errs twice over the warm depth of his feelings.

The first occasion is when they exist in all their strength, but at the same time in repose. Art thou deeply sensible for thy children in the actions of week-day-life, in cool composure while commanding them and perhaps reproving, and caring for them—and during the seperation all the day long, or in the comparison of one child with another; art thou deeply sensible of that glow of love for them, which from the scattered ashes of every day life, breaks forth in pure flames, immediately when thy child suffers innocently, or dies? Then indeed was thy love earlier than thy pain, and the pain of thy child. How does that heart appear in wedlock and in friendship, which in the accustomed close relations of life, beats and grows warm only secretly, in both the hours in which a person pleases me most, the hour of departure, and the hour of arrival, with all the radiant power of the long fostered flame, as the glacier—if such a poetical comparison be allowed—blazes transparently and rosy-red only at the rising and setting of the sun, but stands there gloomy and grey in the daylight.

Perhaps even the adversary of mankind, yes, the greatest selfishness unconsciously loves. Let one snatch himself away from the whole world of mankind, even from the smallest child, and then let him ask his heart: Does not rash coldness against one, against ten, against many, with stiffness towards all, continually change?

Therefore then a gold-mine of love lies almost invisible, until a little fluttering flame in the breast, until in fine a spirit-word arouses him and discloses for man the ancient treasures. Also, it really rejoices me that the heart, merely by the habit of community—it, which formerly all pleasures and charms disrobed, violated—in solitude gathers nourishment for love, as the diamond even under the water absorbs light to emit its beams again, and that love just at the time when hatred obscures it, having remained a long while chilled and devoid of lustre, all at once, when the danger of a seperation occurs, discloses its magnitude with all its brilliancy, for habit lays on the colors of love, as the fresco-painting its own, one after another becomes absorbed and vanishes, and an invisible one is again produced, until at last there arises up and is presented before us, a durable splendid form.

At another time man believes that he is chilled in his feeling by old age, because he can kindle a flame within him only for higher objects, as those, which warm him up sooner. But this is by no means true, which sometimes yet the friend of landscapes, the preacher, the poet, the play-actor, the musician, fears, that art and heart grow weak in their sensibility for nature as years advance, solely because in their old age they are more faintly affected by the objects which charmed them when they were young. It is true thou weepest now, as I, not so often as formerly in tragic scenes and under the spell of music ; but give us a genuine poem, and give me a Vestal of Spontini represented in Mannheim, then will I commend myself, if I maintain even as much power over my emotions, as this over me. Youth is like dark wax that melts even before the sparing sunbeams, while the white made of it scarcely grows warm. The mature and super-mature man flees from the very tears the young man seeks ; but only because they gush out too hotly from him and dry up too slowly.

Therefore, good Heaven! select a man of my age and my heart and my life-long poverty in sublime scenery, and lead him in the Rhine country, and bring him by the attractive long lake of the Rhine, which between two vineyards, as between blissful portions of the world, represents only country seats of pleasure, and islands formed within its embrace, and allows even the after-glow of evening red to bloom upon its surface: truly youth becomes mirrored again in the old man, and the still ocean of eternity, which allows us a glance in the right and great heaven on earth. Or when a kind fortune introduces a man of so many years, and of so little knowledge of art, as I have, and of the same character of thought, in the old German Picture Gallery of the brothers Boisseree, warm friends of art, and when he therein (although he has previously seen by way of initiation the Dying Marie of Van Eyk) meets before his eyes that master piece of his pupil, the head of Christ, and when he feels the necessity of looking closely into the superhumanity of the image, whose eyes are the judges of the world, and whose features have only an affinity with those of men, though not popular, yet super-human, and as he, immediately after the humiliation, before the god-like figure, has gained at last the consolation of entering into existence the second time in the form of man in artist-spirit, and looks into the deep love-fountains of the eyes and lips : then know I, how a merely colored surface would make the heart of that fortunate man tremble and melt away, for I was such a fortunate man myself.

Memory, wit, fancy, sharp-sense cannot rejuvenate in an old man, but the heart has that faculty within itself ; and that you may believe this truth, think thereon, how the hearts of poets glow even in their autumn and their winter. Think of Klopstock, Herder, Gleim, Wieland, Rousseau.

The name Rousseau calls to mind love in a narrower sense.—

And this consoles and warms an old heart perhaps oftener than it expresses itself. The expression of love is also not always necessary for its existence. He who in old age misses love entirely, entertained not the right kind of love in youth, on which all years are alike, as in winter only the dried up branches, but not the juicy ones are overlaid with ice. Painfully the loving heart beats within the breast of that one, when he must think it beats against coldness, it remains only for the space of some ten years, and continues coldly dying during the long ten years. But love will often dissemble and modestly conceal a portion of its warmth from children and grand-children; and the last love is perhaps as modest as the first.

But shall love in old age, as soon as it answers no outward prerogative of youth, be always only ridiculous? Wherefore shall the life of love, which continues with the better men only spiritually, beginning with the inner man, not conclude also with the inner man? Is it then so very ridiculous, when an aged eye full of soul glances on thee, and permits thee to divine the memories of all its spring seasons? Yes, even if it become liquid, though not too tearful, with an emotion half joy, half after-feeling, may not this also be pardoned? And is then an aged hand not allowed to press the hand of a young person, when it intimates by the pressure no other signals than these: *I also was in Arcadia, and Arcadia also remains in me?* For the youth of the spirit is eternity, and eternity is youth; love affords as the ambrosia of ancient poetry, the sweetest fare and immortality at the same time. The body is the flowering-wand of love; but only the wand, not the living flower moulders away in the dust of earth.

When while the feelings of every age of life remain secure, even then all signs of the same retain not the self-same freedom, although I might say to each and every individual of the human family: *Spare every true love, by whatever tokens you may discern it, and deride the outbreak of a blissful heart not more rashly than you dare the grief of a mourner.*

To a common person peculiarly, every sign of a love, of which he is only the spectator and not the object, appears ridiculous and faulty, even in the very flower of life; therefore he ascribes to himself a greater right to laugh coldly when out of the ordinary season he meets with the forget-me-not of love.

ART. V.

THE NEW-YEAR'S NIGHT OF AN UNFORTUNATE.

From the German of Jean Paul Richter.

An old man stood by a window on a New-Year at midnight, and looked with a glance of long desperation up towards the immovable, continually blooming heaven, and down on the still, pure, white earth, where now no one was so joyless and sleepless as he. For he stood near his tomb, which was decked only with the snow of old age, not by the green of youth, and he brought nothing along out of his whole rich life, nothing along, but errors, sins and sickness, a ravaged body, a desolated soul, the breast full of venom and an old age full of remorse.

The fine days of his youth were now changed into spectres, and allured him away again to the bright morning, where his father first placed him on the crossway of life; towards the right the sunny road of virtue leads up into a wide peaceful land, full of light and harvests and full of angels; the one towards the left leads down among the mole-hills of vice into a black hole full of dropping poison, full of aiming serpents and black sweltering vapors."

"Ah! the serpents wound themselves around his breast, and the drops of poison hung upon his tongue, and he knew now, where he was."

"Madly and with unutterable grief he cried out to Heaven: Give me youth again! Oh Father, place me on the cross-way again, that I may choose the other road."

"But his Father and his youth were gone far hence. He saw will-o'-the-wisps dancing over the moor and dying away in the church-yard, and he said: These are my foolish days! He saw a star shoot out from Heaven and glimmering in its fall, melt to nothing on the earth. That am I, said his bleeding heart, and the serpents of remorse buried their teeth deeper in its wounds."

"Flaming phantasy showed him crawling night-wanderers on the roofs, and the windmill raised its arms, groaning to break to pieces, and a corpse left remaining in an empty death-house gradually regained its lineaments."

"Suddenly in the midst of the spasm, the music for the New Year flowed down from the steeple, like church-melodies from afar. He was tenderly touched—he looked around on the horizon and over the wide world, and he thought on the friends of his youth, who now, happier and better than he, were teachers of the earth, fathers of happier children and blessed men, and he said: O, I also could slumber, with dry eyes this first night, like you, had I been willing. Ah, I could be happy, ye dear parents, had I complied with your New Year's wishes and warnings."

"In feverish memories on the time of his early youth, it ap-

proached before him—as the corpse with its lineaments rose up in the death-house—at last, through the superstition which descries spirits and futurity on a New Year's night, it changed itself into a living youth, who in the position of the beautiful youth of the Capitol, draws a thorn from himself and his formerly blooming figure, with juggling gestures bitterly shamed."

"He could look at it no longer—he covered his eyes—thousands of hot tears streamed sinking in the snow—with stifled groans, comfortless and senseless, he sighed: only come again, Youth, come again!" * * * *

——And it came again; for he had only had a frightful dream on a New Year's night—he was yet a youth. His errors only were no dream; but he thanked God, that he, yet young, could turn in the corrupt path of vice and repair back to the sunny road, which leads into the pure land of harvests.

Turn back with him, young reader, if thou art standing on his erroneous course! This frightful dream will one day be thy judge; but when hereafter overwhelmed with affliction, thou would'st call: come again, fair youth—never *again* will it come.

ON ART, NAIVETE AND HUMOR.

FROM THE GERMAN OF GOETHE.

Art is a serious business, the most serious when it busies itself with noble, holy subjects; but the position of the artist is above the art and the subjects: above that as he uses it for his aim, above these because he treats them according to his own style.

The plastic art is referred to the visible, to the outward appearance of the natural. The pure natural, as far as it is morally pleasing, we call *naive*. *Naive* subjects are therefore within the province of art, which must be a moral expression of the natural. Subjects which refer both ways are the most favorable. The *naive* as natural is intimately united with the real. The real without any moral reference we call common.

Humor is one of the elements of a genius, but as soon as it predominates, only a substitute of the same; it accompanies declining art, destroys, annihilates it at last.

A germ of audacity exists in every artist, without which no talent is imaginable, and this will act, particularly when one interests and exercises his abilities, restrained towards a single aim.

TO THE PATRONS OF THE WESTERN JOURNAL.

The association heretofore existing between Messrs. Tarver & Risk having been dissolved by mutual consent, the present number of the Western Journal appears under the name of M. Tarver as sole Editor and Proprietor, to whom the books and accounts of the late firm have been transferred for collection.

We use this occasion to remind our patrons, whose accounts remain unsettled, that the recent change in the proprietorship of the work renders it necessary on our part to insist upon an early adjustment of all claims due to the late firm of Tarver & Risk. To us, this is a disagreeable topic and one that we seldom recur to; always confiding in the good faith of our patrons, we have waited with patience upon their convenience; but we trust that every one will perceive and acknowledge the propriety of the present appeal. We do not send bills; the receipts in the possession of each subscriber will show how much he owes, and they are authorized to remit by mail to the address of M. Tarver, when receipts will be promptly forwarded without charge of postage.

In connexion with this subject we beg to remark, that nothing tends so much to increase the cost of newspapers and periodicals, as a lack of punctuality on the part of subscribers. When we take into consideration the enormous commissions paid for collecting small bills, the number of subscribers who die or remove, and the cost of financiering, often made necessary because collections cannot be promptly made—to say nothing of the vexations of the publishers—we verily believe that were payments uniformly made when due, that the cost of newspapers and periodicals could be reduced to nearly one-half the present prices, and then pay the publishers as much profit as they realize under the present system. But enough of this for the present.

In parting with the junior Editor we desire to place his connection with the Western Journal in its proper light before our patrons and the country. In his mind the conception of the work originated, and it was at his solicitation that we undertook the enterprise. He entered into the enterprise with enthusiasm, and with high hopes of making himself useful to the country and to the age; but owing in part to public employment, and the necessity of travelling on account of this work, but more especially to continued ill-health—for nearly two years of the time of our association—he was not in a condition to exercise or improve his talents as a writer; and it is owing to these causes that so few articles have appeared from his pen in the pages of the Western Journal. He has, however, under all these embarassments, done enough to prove that he possesses genius of no ordinary character, and a heart devoted to the best and highest interest of his country.

HUDSON E. BRIDGE. HARRISON P. BRIDGE.

Bridge & Brother,

No. 43 Main Street, St. Louis, Mo.,

MANUFACTURERS of Pierce's Patent "American Air-Tight," "Empire" and "Victory" Premium Cooking Stoves, and every variety of Wood and Coal heating Stoves, dealers in Tin Plate, Copper, Sheet Iron, Iron Wire, Tinners' tools, machines, also, manufacturers of Jewett's improved Patent Cary Ploughs.

J. Blattner,

MATHEMATICAL and Surgical Instrument maker, Dealer in Guns, Pistols and Sporting Materials, No. 58 North Second Street, between Pine and Olive, St. Louis, Mo., Manufactures and has always on hand: Surveyors' Compasses, Levelling Instruments, Theodolite Pocket Compasses, Spy-glasses, Barometers, Therrmometers, Drawing Instruments, Spectacles, Ivory and Gunter's Scales and Prot actors, Hour and Half Hour Glasses, Microscopes and Magnifying Glasses, Hydrometers of silver and glass, Hydrometers for acids and salts, Magic Lantherns, Electrical Machines, &c., also—Surgical and Dental Instruments; Pocket, Dissecting, Cupping and Self-injecting cases; Taylor's Shears, all sizes; Syringes, large and small, Scarificators, Lancets; Forceps; Turnkeys; large Scales and Weights, for Druggists; Prescription Scales on Stands; Revolvers, Guns, Pistols, Powder Flaks, Game Bags, &c., ☞All the above Instruments repaired at short notice in the best manner.

Wilson & Brothers,

WHOLESALE DEALERS IN HARDWARE, corner of Main and Olive streets, St. Louis, Mo.

C. BENEDICT, Danbury, Conn. D. PEARCE, St. Louis, Mo.

David Pearce & Co.,

MANUFACTURERS and wholesale dealers in Hats, Caps and Straw Goods, No. 120 Main street, St. Louis, Mo.

Hewitt & Steinacker,

SADDLE, Harness and Trunk Manufacturers, wholesale and retail, No. 67 Fourth street, corner of Pine, opposite the Planters House, St. Louis, Mo.

J. A. Ross,

SCALE and Spur Factory, Brass Foundry and Machine Shop, 202 north Second street, between Morgan and Cherry streets, St. Louis, Mo. Constantly on hand and manufactured to order, Platform Scales of all sizes, Counter and Druggist Scales, Flour, Floor, Hay and Car Scales. Also, Beam Scales of Iron or Brass. Scales repaired with neatness and despatch. Spurs, for Dragoons and others, and Brass Castings furnished on short notice.

P. Wonderly,

MANUFACTURER of Copper, Tin and Sheet Iron Work—such as Copper Pipes for Steamboats and Distilleries, Soda Fountains, Copper Kettles, Well and Cistern Pumps, and every other article in his line of business; No. 233 Main street, south east corner of Cherry, St. Louis, Mo. He also manufactures and keeps constantly on hand, Premium Steamboat Cooking Stoves. Tinware always on hand, wholesale and retail.

H. W. LEFFINGWELL, Notary Public. R. S. ELLIOTT, Com'r of Deeds.

Leffingwell & Elliott,

REAL ESTATE Dealers, Auctioneers and Conveyancers, No. 123 Chesnut street, St. Louis, Mo. Real Estate sold on commission, at private sale, or auction. Also, Deeds of all kinds written, and acknowledgments taken. Maps of the city and additions, to be seen at the office, and information given free of charge. Surveying done promptly and correctly.

Glover & Campbell,

Late of Palmyra, Mo., Attorneys at Law,

SAINT LOUIS.

John C. Meyer,

Dealer in Hides, Leather, Oil, and Findings,

No. 88 North Main Street, St. Louis.

Charless & Blow,

NO. 70 and 72, Exchange Building, St. Louis, Mo., Importers and dealers in drugs, medicines, oils, paints, dye stuffs, perfumeries, window glass, glass-ware, &c.

O. W. Jerome,

WHOLESALE and retail dealer and manufacturer of Cabinet Furniture, chairs, bedsteads, &c., Nos. 44, 46 and 48, Olive street, opposite the Monroe House, Saint Louis, Mo.

Sligo Book Store and Paper Warehouse.

AMOS H. SCHULTZ, No. 136, north Main street, St. Louis, opposite the Bank. Wholesale dealer in books, paper and stationery.

THE undersigned takes the liberty of informing you that he has removed his place of business to Olive street, a few doors above Main, south side, in the Exchange Building, and three doors above Messrs. E. W. Clarke & Co's. Banking House, where he is now opening, and will continue to receive during the Spring months, a large and full assortment of the most

Fashionable Styles of Goods,

In his line, for gentlemen's wear; and where he will be pleased to see his old friends and customers, and their friends with them; and assures those who may favor him with their patronage, that they shall receive his personal attention, and his best efforts to please. Very respectfully, your ob't servant,

J. G. SHELTON.

Giles F. Filley,

MANUFACTURER of the celebrated prize premium cooking stoves; also, Irving's air tight cooking stoves, fancy parlor stoves, fancy box and coal stoves; dealer in tin plate, copper, sheet iron, block tin, rivets, tinner's tools, machines, &c. Warehouse No. 163 north Main street, St. Louis, Mo. Foundry on Lewis street, near the water works.

Clothing at Wholesale.

ARCHIBALD YOUNG & CO., 99 Main street, St. Louis, Mo., Wanzer Minor & Co., 126 Pearl street, Yew York, Moses Wanzen and Henry J. Minor, New York, Archibald Young, St. Louis.

N. B.—We manufacture all of our own goods, and sell at the lowest possible prices

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Fallon & Wright,

CARRIAGE mamufacturers and dealers, No. 90, Fifth street, between St. Charles and Locust, are constantly mamufacturing, and have on hand, all styles of carriages, which they will sell on the most reasonable terms. They flatter themselves from the experience they have had in the business, to be able to urnish as good an article as can be bought in any market. Citizens and strangers are requested to call and examine for themselves. All carriages made by us are warranted to be as represented, or the money refunded. WESLEY FALLON,

JAS. A. WRIGHT.

Washington Foundry.

CORNER of Second and Morgan streets, St. Louis, Mo. We are prepared to fill with dispatch, and to fit up in superior style, all orders in the Foundry and Machine business, such as steam engines, mill work, mill castings, railroad cars, wheels for coal trucks, lard and soap kettles of all sizes, press screws, &c., made to order at short notice. Wool carding machines, shearing machines, and a large and superior stock of machine cards, we will warrant equal to any in the Union. All orders from the country will meet with prompt attention.

J. T. DOWDALL & CO.

Doan, King & Co.

WHOLESALE Dry Goods dealers, 131 and 133 Main street, St. Louis. Job P. Doan, St. Louis, Wylley King, do., Richard Bigelow, New York.

Crow, McCreery & Co.,

WHOLESALE dealers in Dry Goods, No. 71 Main street, St. Louis Mo. Wayman Crow, Phoceon R. McCreery, Wm. H. Barksdale, Wm. A. Hargudine, Charles D. Appleton.

Great Western Clothing Emporium!

WHOLESALE AND RETAIL,

No. 124 *and* 126 *Second street, corner of Vine.*

W. L. & J. BIGELOW & Co., St. Louis, Mo.

BAKER, NELSON & Co., 51 Cedar street, New York.

Thomas Grey,

BLACKSMITH and Iron Worker, No. 90 North Second Street, between Olive and Locust, St. Louis Mo. Keeps constantly on hand, and manufactures to order, Ox Chains, Sledges, Wedges, and every description of Mining Tools, also Iron Hobbles and Picket Pins. ☞Blacksmith work for Housebuilders, at the lowest prices. ☞He has always on hand, the highly recommended *Iron Frame Bedstead, and Camp Stool.*

General Agency at Dubuque, Iowa.

FOR Public Lands—Real Estate—Military Land Warrants—Payment of Taxes—Investigation of Titles—Amicable Collection of Debts, and all other business within the legitimate sphere of an Agents duties, by

CHARLES CORKERY,

Notary Public and Commissioner of Deeds and Depositions for all the North-western States, Missouri, included.

October, 1850.

Fruit Trees and Shrubbery,

FOR sale by JOHN SIGERSON & BROTHERS, at their fruit farm and nursery. This establishment is located seven miles South of St. Louis, Mo. There are Omnibus Coaches running daily from the City within one half mile of the establishment. The Nursery and Gardens are open at all times (Sundays excepted) for the reception of visitors. Horticulturists and Amateurs are respectfully invited to visit the establishment and examine for themselves. In directing the attention of the public to their nursery, they would remark that one of the firm, (Mr. James Sigerson,) has been engaged in the above business for the last twenty-five years; during that time he has tested many of the varieties now growing. This, with the assurance on their part of an intention to increase the number of their trees, as well as to add to their assortment from year to year, furnishes a strong guarantee to persons wishing to make choice selections of fruit, that they can always be supplied. Their prices for trees will be as reasonable as at any similar establishment East or West, and when desired, trees will be delivered free of charge in the city or on steamboats; packed in good order for their destination.

☞All letters addresed to John Sigerson, St. Louis, or to James Sigerson, Carondelet, will meet with prompt attention.

JOHN SIGERSON & BROTHERS.

Missouri Foundry.

S. J. SMITH. T. FAIRBRIDGE. W. D. WOOD. H. B. HAWKINS.

FAIRBRIDGE, WOOD & CO.,

MANUFACTURERS of Castings, Iron Railings, Iron Window Shutters, Vaults and Doors; Plumbago Concrete Fire Proof Safes; also, Garrison's Portable Saw Mills.

Office and Warehouse No. 118 North Third Street.

Foundry, corner Clark Avenue and Eighth Street. June, 1851.

St. Louis Saw and Scale Factory.

LEE, GAGE & CO.,

MANUFACTURERS of every description of Saws and Scales. Factory on Broadway, North St. Louis. Office and Wareroom No. 86 Maln Street, up stairs. June, 1851.

ROLIN CLARK, } PHILANDER BRALEY,
JOHN RENFREW, } ALEXANDER CROSIER.

Eagle Foundry and Engine Shop.

NORTH west corner of Main and Biddle streets. Manufacturers of all kinds of machinery, boilers and sheet iron work, portable circular saw mills always on hand, all orders executed with fidelity and despatch.

Home Mutual Fire and Marine Insurance Company of St. Louis.

NOTWITHSTANDING the heavy loss sustained by this company in May last the stock notes now on hand amount to $350,000. The stock notes of the company are secured by lien upon real estate and approved endorsers. Office, No. 120 North Third street.

Directors:—I. L. Garrison, A. P. Ladew, P. Salisbury, John Whitehill, Jos. A. Eddy, Henry Kayser, D. D. Page, Theron Barnum, John Kern.

ISAAC L. GARRISON, President,

D. D. PAGE, Treasurer,

PHILANDER SALISBURY, Secretary.

John S. Watson,

(Late of Wilgus & Watson.)

NO. 51º 40′ Pine street, between 2d and 3d, next door above the old stand of Wilgus & Watson, house, steamboat, sign and ornamental painter, grainer, glazier, whitener and paper hanger; also, dealer in all the latest styles of French and American paper hangings. He keeps constantly on hand and ready for sale mixed paints of all colors, oils, varnishes, Japan, turpentine, white lead, putty, and a large and superior assortment of French and American window glass, which will be cut to any size to suit customers.

☞ Particular attention paid to estimating on houses or steamboats. nov.

Saint Louis Furniture Store,

WM. M. HARLOW, proprietor. Manufactures and keeps constantly on hand every variety of household furniture, matresses, window blinds, willow ware, &c., &c.

Also, manufactures to order every article in his line, with despatch. Orders from abroad promptly attended to, and goods carefully packed. All goods warranted as recommended.

New Warehouse, No. 88 Second street, between Olive and Locust streets, St. Louis, Mo.

New Madrid County Records.

PERSONS wishing to obtain transcripts of records in New Madrid county, can procure them without delay by addressing the undersigned. And to avoid the inconvenience of remitting small sums, the records will be directed to George Pegrim & Co., St. Louis, who will deliver the same upon the payment of the fees.

WM. MOSELEY.

March, 1851. Recorder of New Madrid County, Mo.

Missouri State Mutual Insurance Company.

DIRECTORS:—John O'Fallon, C. M. Valleau, Reuben Knox, Daniel D. Page, Oliver Bennett, John Sigerson, John S. McCune, Joseph A. Eddy, True W. Hoit.

This company is established upon the mutual principles of insurance, and is emphatically a home institution. The fire risks of this company are extended into all parts of this State. Its earnings are never employed or invested in stocks or real estate, but kept for the prompt liquidation of losses, and under the immediate control of the Directors. Every person insuring with this company becomes interested in its success, and its profits instead of being divided among a few stockholders, belong to those who insure in this company.

The Directors aware of the importance of a well secured fund, reliable in case of loss, and ample under all ordinary calamity, assure the public that they have already a pledged fund, ample and reliable for any contingency, with a monthly increase of premiums of over ten thousand dollars. For the length of time this company has been in operation (six months) its business has been extended into all parts of the State and the city, and has received from the public a liberal patronage, which has placed it upon a permanent basis.

By an act incorporating this company, the parties insuring property therein, are entitled to the entire profits of the institution, the premium notes are also pledged by the charter for the payment of losses.

The portfolio of the company is at all times open to the inspection of its members and those wishing to make insurance with it. Policies are issued from thirty days to six years, thereby effecting a permanent insurance, with a return premium of from fifteen to fifty per cent, according to the term of insurance.

Agents for this company, may be found in all the principal towns in the State to whom application may be made.

Office of the company over E. W. Clark & Brother, corner of Main and Olive streets, Exchange building, where insurance will be effected at the tariff rates of premium.

C. M. VALLEAU, President,

H. D. BACON, Treasurer.

S. F. LEDYARD, Secretary.

John Loughborough,

ATTORNEY AND COUNSELLOR AT LAW,

OFFICE—No. 56 Pine street, near Third, (adjoining that of the Clerk of the Supreme Court.)

Woods, Christy & Co.,

WHOLESALE dealers in Dry Goods, No. 75 Main street, St. Louis, Mo. James Woods, William T. Christy, James C. Christy, Robert K. Woods.

J. Henwood,

Hat Manufacturer, 72 Chesnut Street, St. Louis, Missouri.

Wolf & Engert,

IMPORTERS and Dealers in Paper-Hangings, colors and Fancy Papers, No. 49 South Second street, between Elm and Myrtle, St. Louis, Mo. Constantly on hand, all kinds of Oil and Water Colors, Paper-Hangings, Chimney Screnes, Tester Pieces, Window shades, Marble, Marroquin, Gold and Silver Paper, Painters' and Dutch Gold Bronze, Lead Pencils, Paint Boxes, Paint Brushes, Drawing Paper &c. April, 1850.

F. Dings & Co.,

IMPORTERS of German, French and English Fancy Goods, and Manufacturers of all kinds of

BRUSHES.

No. 47, Main street, St. Louis, Mo.

THE BANKING HOUSES OF ST. LOUIS.

D. D. PAGE. E. D. BACON.

Page & Bacon,

Banking House, No. 139 Main street, St, Louis; next door to the Bank of Missouri.

N. B. Deposits received, Drafts and Notes from all parts of the Union collected, and exchange on the East and South for sale at all times.

Also, Branches of Exchange and Banking Houses at San Francisco and Sacramento Cities, California.

Loker, Rinick & Co.,

Bankers and Exchange Dealers, No. 132 Main st., west side, third door north of Pine st., St. Louis, Mo.

Interest paid to depositors, drafts and notes collected, sight and time bills purchased and sight exchange on the eastern cities and New Orleans for sale at the lowest rates in sums to suit purchasers.

John J. Anderson & Co.,

Bankers and Exchange Dealers, on the North-West corner of Main and Olive streets, St. Louis Mo.

Interest paid to depositors, drafts and notes collected, sight and time bills purchased and exchange on the eastern cities and New Orleans for sale at the lowest rates.

L A. Benoist & Co.,

Bankers and Exchange Dealers, No. 83 Main st., east side, third door north of Olive st., St. Louis, Mo.

Interest paid to depositors, drafts and notes collected, sight and time bills purchased, and sight exchange on the eastern cities and New Orleans for sale, at the lowest rates, in sums to suit purchasers.

S. HASKELL. JA'S. E. FRANCISCUS. J. H. BILLING.

EXCHANGE BANK.

Haskell & Co.,

Bankers and Exchange Dealers, corner of Main and Vine Streets,
ST. LOUIS. MO.

BUY and sell exchange on all the eastern, western, and southern cities; all kinds of bank notes, and Foreign Gold and Silver.

☞ Land warrants bought and sold, and fully guaranteed.

☞ Collections made on all cities, and promptly remitted for, at current rates of exchange, *free of charge.*

☞ Interest allowed on deposits on time, or to be checked for at sight.

The highest price paid for Gold Dust.

JOHN HOW. WM. CLAFLIN. ROBT. COOK. JNO. A. ALLEN.

How, Claflin & Cook,

DEALERS in Boots and Shoes, Hides, Leather, Shoemakers' Findings, Tanners' Oil, Curriers' Tools, &c, .412 Main Street, (opposite the Bank,) St. Louis, Mo. April, 1851.

C. M. & H. M. Warren,

MANUFACTURERS of Warren's Improved Fire and Water-Proof Composition Roofs, and Roofing Materials, which are kept constantly on hand and for sale (with directions for use) to those in the country who may desire to adopt this mode of roofing.

Office and Manufactory, East side Second Street, between Almond and Poplar, St. Louis, Mo. Office Hours from 10 to 11 o'clock A, M. and 4 to 5 P. M.

Jonathan Jones'

COMMERCIAL COLLEGE, ST. LOUIS, MO.

Incorporated by the General Assembly, January 24, 1849,

WITH full authority "to grant diplomas, award degrees, confer honors, and exercise all and singular, the privileges common to Commercial Colleges, authorized by law in other States."—Charter, Sec. 2.

JONATHAN JONES, Master of Accounts—President and acting Professor of theory and practice of book-keeping, commercial calculations, commercial correspondence, etc., etc.

JAMES W. RICHARDSON, Practical Accountant—Permanent Associate in book-keeping Department.

CHARLES STEWART, Professor of Mathematics—In special charge of commercial calculations.

FLETCHER M. HAIGHT, Esq., Professor of Commercial Law.

JOSEPH P. HORTIZ, Professor of Penmanship.

N. B.—For information in regard to the terms, the course of instruction, and all business connected with the above, call at the "Book-keeping Department," corner of Fourth and Chesnut streets, or address Jonathan Jones, St. Louis, Mo.

The St. Louis Union

BOOK AND JOB PRINTING ESTABLISHMENT,

No. 35 Locust Street between Main and Second, St. Louis Mo.

JOHN D. M'MURRAY. JAMES M. DORMAN.

M'Murray & Dorman,

IRON Railing Manufactory corner of Third and Pine streets continue to manufacture at the above establishment, all kinds of Plain and Ornamental Iron Railing, Balconies, Bank and Jail Doors, Book Safes, Fire-Vaults, Iron Window Shutters, Iron Awnings, Lightning Rods, Bedsteads, Gratings, and in fact, any thing which can be formed of Iron.

John Mullery,

PREMIUM Horse Shoer, in the alley, opposite the Post Office, will as usual pay particular attention to the various disease effecting the feet of horses, and will guarantee to give general satisfaction in either of the above departments.

M. Tarver,

ATTORNEY AND COUNSELLOR AT LAW,

No. 97 *Chesnut Street, St. Louis,*

(TWO DOORS WEST OF THE POST OFFICE.)

T. F. Risk.

ATTORNEY AND COUNSELLOR AT LAW,

Office—No. 97 *Chesnut Street,*

St. Louis, Mo.

Charles & Hammond,

BOOK AND JOB PRINTERS,

Chesnut Street,

St. Louis, Mo.

Slate Yard.

JOHN M. CANNON, Slater,

No. 15 *and* 17 *South Sixth street, St. Louis,*

WOULD respectfully inform the public that, having now completed his arrangements, he is prepared to make contracts for any work in his line. He has in his employ practical slaters, and is well prepared to execute in a workmanlike manner, and with dispatch, all orders entrusted to his care. He keeps constantly on hand, and for sale, Welsh slate, ridge tiles, sheet lead, slate flagging, slate hearths, copper, brass and iron slating nails, Rosendale cement, and all other articles pertaining to his business. He will strip from roofs, zinc, sheet iron, tin, or other covering, and substitute therefor slate. Slate removed from one roof, can be used to advantage on another, which is not the case with any other roofing material. His terms are such as cannot but prove satisfactory. Apply as above.

THE WESTERN JOURNAL,

PUBLISHED MONTHLY.

DEVOTED TO

AGRICULTURE, MANUFACTURES, MECHANIC ARTS, INTERNAL IMPROVEMENT, COMMERCE, AND GENERAL LITERATURE.

M. TARVER, Editor and Proprietor.

TERMS—THREE DOLLARS PER ANNUM, IN ADVANCE.

PUBLICATION OFFICE:
No. 97, CHESNUT STREET, 2 doors west of the Post Office.

The Western Journal is designed to embrace every subject connected with Agriculture, Commerce, Manufactures, Mechanic Arts, Mines, and Internal Improvement.

A portion of the work will be appropriated to Statistics, which will be collected and arranged with reference to the leading subjects contained in the respective numbers.

The development of the vast resources of the valley of the Mississippi, and the improvement of the intellectual and social condition of its inhabitants, will be constantly kept in view; and the leading article of each number will be devoted to the advancement of these objects. In attempting to illustrate and give direction to the economy connected with the leading pursuits of the country, the Editors have undertaken more than has been done, or proposed by any other journal with which they are acquainted. And it is by their labors in this department, mainly, that they expect to make the work useful.

Contributions are solicited on all subjects properly embraced in the design of the work.

☞ Owing to the enlargement of the work, six numbers will hereafter constitute a volume, and a general Index will be made out to accompany the 6th and 12th numbers.

☞ Publishers of Newspapers who will insert the foregoing prospectus in their papers, once in three months, will be furnished with the work for one year.